

Product Program **Industrial Lubricants**

2024

MOVING YOUR WORLD



FUCHS LUBRICANTS GERMANY

We don't just develop lubricants. For highly complex challenges in a wide range of industries, we develop innovative lubricant solutions that enable the mobility of tomorrow. Our goal: to keep our customers' world in motion. Efficient, sustainable, reliable. Today and tomorrow.

What can we move for you?

FUCHS LUBRICANTS GERMANY

Facts and figures

Company: FUCHS LUBRICANTS GERMANY GmbH,
a company of the FUCHS Group

Locations: Mannheim, Dohna, Kaiserslautern, Kiel and Wedel;
approx. 1,400 employees

Product range: A full range of more than 3,000 products
for all application areas

Certifications i. a.: ISO 9001, IATF 16949, ISO 14001,
ISO 45001, ISO 50001, ISO 21469, HALAL, KOSHER
(detailed certifications at www.fuchs.com/de/en)

Gate-to-Gate* CO₂-compensated

FUCHS LUBRICANTS GERMANY is a subsidiary of FUCHS SE, the world's largest independent supplier of lubricant solutions. Around 1,400 specialists at the headquarters in Mannheim and the sites in Kaiserslautern, Wedel, Kiel and Dohna work with dedication on innovative lubricant solutions that enable the mobility of tomorrow.

The high level of technical consulting expertise combined with the largest, nationwide network of its own technical contacts makes FUCHS LUBRICANTS GERMANY a reliable local partner. A comprehensive product range, supplemented by digital offerings and Smart Services, as well as many years of lubricant expertise and a high level of research competence are the foundations for the innovative FUCHS lubricant solutions. They reduce wear and energy requirements, extend the running times and service life of machines, and thus keep the world moving - from industrial motors and e-cars to wind turbines and washing machines. FUCHS LUBRICANTS GERMANY is certified according to a wide range of standards and, as a technology leader and development partner, places the highest demands on quality management.

Customers in all industries benefit from this quality management: automotive suppliers and OEM, mechanical engineering, metal processing, mining and exploration, aerospace, energy, construction and transport, agriculture and forestry, as well as the paper, steel, metal, cement, forging and food industries, but also qualified lubricant dealers, car dealerships and workshops.

MOVING YOUR WORLD

*Gate-to-Gate Scope includes GHG-Protocol Scope 1, 2 and selected Scope 3 emissions (water, waste, business travel, commuting)



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Package overview

Get a quick overview of the available packages of a product. Under each product pictograms and package units are listed accordingly.



Canister



Cartridge



IBC



Tin



Drum



Tube



Tank truck



Spray can



Bottle



Bucket

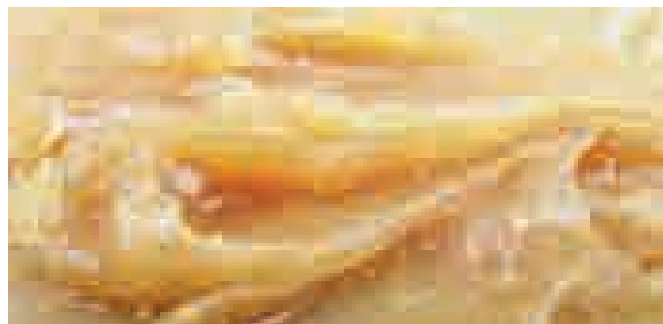
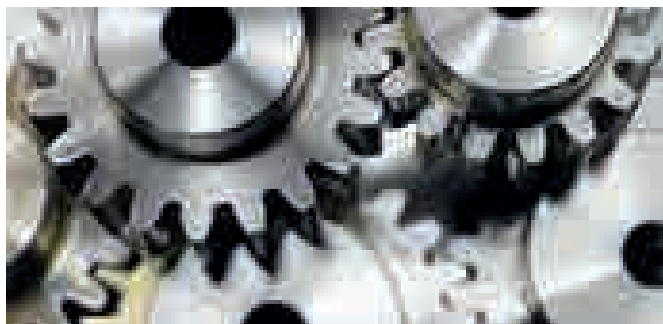


Tin



Hobcock

The World of Industrial Lubricants



Industrial Oils

Many processes in the industry work perfectly only with specially tailored lubricant solutions. For example, in the transmission of energy by pressure media (**hydraulic fluids**), in the gearing of driving forces (**gear oils**), in the power generation in power plants (**turbine oils**), at refrigeration (**refrigeration oils**) or compressed air production (**air compressor oils**) the respective industrial oils have a significant task.

Rapidly biodegradable lubricants from FUCHS present a real alternative to hydrocarbon-based lubricants.

The range of industrial oils from FUCHS offers a whole host of high-performance product solutions for the most diverse of applications and target groups.

In addition, FUCHS industrial oils can make a significant contribution to an improved productivity, can increase efficiency significantly and reduce energy consumption and associated CO₂ emissions.

Lubricating Greases / Pastes

Lubricating greases are consistent lubricants made up of base oil and a specially chosen thickener. To increase certain properties, additives are added to the lubricating greases. Lubricating greases are structural elements, especially when used as long-life lubricants for lifetime lubrication.

Pastes are consistent lubricants, which contain special solid lubricants to optimise their lubrication performance. It is precisely in the marginal areas of grease lubrication where grease pastes exhibit their exceptional efficiency, e.g. with high loads or rapidly changing directions of movement. They reduce friction and protect against wear.

The balanced and complete product range of FUCHS lubricating greases offers you the ideal technical and economical solutions for the greatest possible number of lubricating grease applications.



FUCHS has one of the world's most diverse portfolio of biolubricants. Many of our biodegradable products carry the European environmental label (Euro-Marguerite). New series of biodegradable hydraulic and gear oils were developed within the PLANTO range on the basis of saturated ester. The proportion of renewable raw materials is greater than 50% here.



Metal Processing Lubricants

Modern metal processing lubricants are subjected to a variety of demands. They must be both economical and efficient, and free of ingredients that are harmful to the environment and human health.

FUCHS has the necessary process expertise to optimally meet the very specific and diverse requirements in metal processing. The comprehensive and high-performance lubricant range from FUCHS is characterized by outstanding application results in all areas of metal processing - from **cutting fluids, quenching fluids and forming lubricants** to **cleaners and corrosion preventives**.

Special Application Lubricants

The product range of FUCHS includes lubricants and release agents for highly specialized applications. These lubricants are always used where the performance of conventional lubricants for the special application reaches its limits. They are marked with FUCHS Special Applications.

FUCHS Special Applications

FUCHS develops highly specialized lubricants and related specialties in close cooperation with customers in order to offer tailor-made solutions. This has resulted in a very broad portfolio over the last decades that is characterized by its performance - even under extreme conditions.

Furthermore, special application lubricants from FUCHS stand for sustainability as well as for safety, reliability and economy.

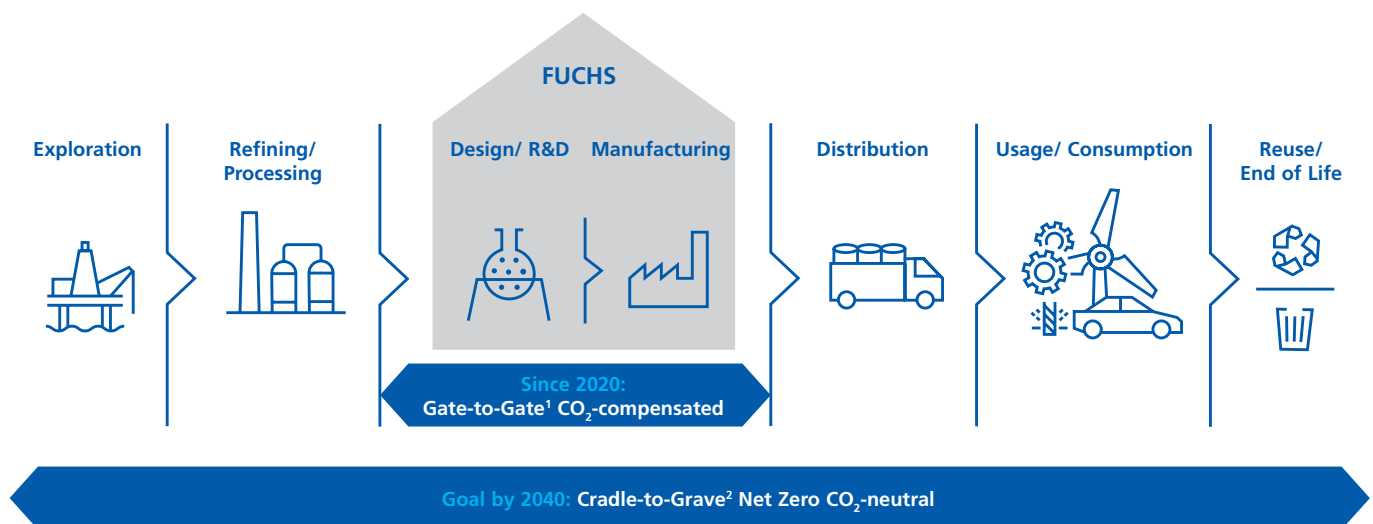


Within the DMQP Program FUCHS supplies as a certified DMQP partner at DMG MORI cutting fluids and lubricants that have been exclusively tailored to machines and processes. The DMQP program generates synergies out of machines, peripheries and accessories with the very highest quality standards. It combines innovation and technology expertise from selected DMQP partners, who have been exclusively awarded the premium seal of quality for their products.

ACTIVE PLAYER FOR SUSTAINABILITY – The path to 2040

The FUCHS carbon-neutrality strategy is embedded in our sustainability strategy, which began in 2010 when we signed the „Code of Responsible Conduct for Business“. In 2018 we joined the „Alliance for Development and Climate“ led by the Federal Ministry for Economic Cooperation and Development.

At the same time, we initiated the foundation of a sustainability workgroup under the umbrella of the Union of the European Lubricants Industry (UEIL). Together, we develop harmonized sustainability standards, KPIs, and benchmarks to enable sustainability-based comparisons.



¹ Gate-to-Gate Scope includes GHG-Protocol Scope 1, 2 and selected Scope 3 emissions (water, waste, business travel, commuting) for all affiliates and JVs incl. compensation.

² Cradle-to-Grave Scope includes GHG-Protocol Scope 1, 2 and applicable Scope 3 emissions (3.1/2/3/4/5/6/7/12) for all subsidiaries and JVs.

FUCHS has already achieved its first milestone, and in 2021 it also for the first time extended the recording of its Corporate Carbon Footprint and offset to all joint ventures. To do this, all greenhouse gas emissions of FUCHS that are directly attributable to our business activities ("gate-to-gate") have been measured retroactively since 2019 and offset through investments in climate protection projects.

FUCHS restricts its choice of projects for this purpose to high-quality certifications such as UN Gold Standard or VERRA. In any case, compensation measures are only the last step undertaken once avoidance and reduction measures have met their limits. FUCHS is therefore continuously expanding the proportion of renewable energies that make up its power supply, with the aim of gradually sourcing its electricity worldwide from renewable sources.



→ More information
about our path to
climate neutrality

TIME TO ACT

Renewable, bio-based, recycled –
on the way to a circular economy

ACT, Advanced Circular Technologies, answers the challenge to transform our value chain from linear to circular - without compromising on performance!

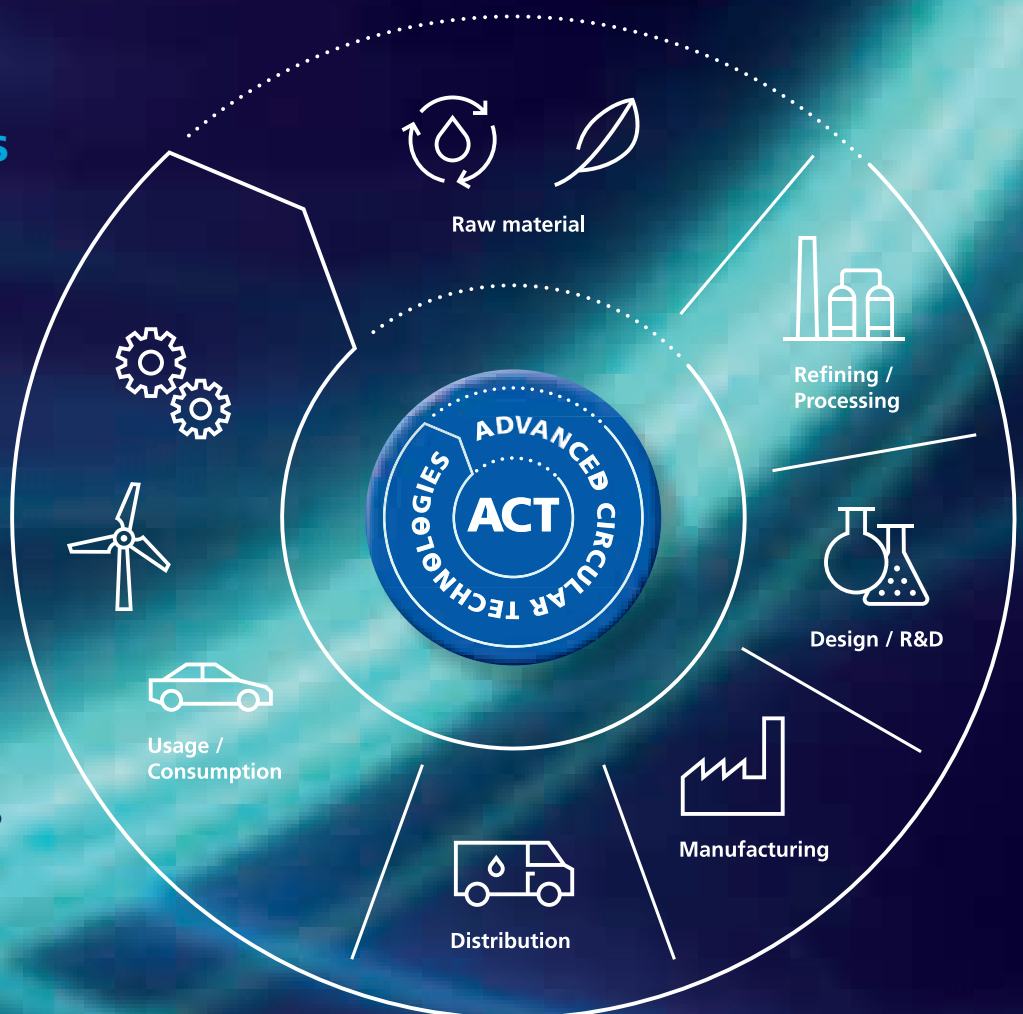
ACT sums up everything we do for this transformation process: starting with raw materials to the application of our lubricant solutions and up to recycling at the end of the life cycle.

TIME TO ACT: we gradually replace finite raw materials with renewable, bio-based or recycled ones.

Sustainability meets performance

Selected products now based on ACT

- Selected FUCHS oils based on ACT product technologies now get a sustainability upgrade
- Your benefit: smaller Product Carbon Footprint and more sustainability as an add-on to the well-known outstanding FUCHS quality and performance
- ACT is driven by meticulous research and development, adding technical to environmental value



Examples for Key Technologies

Industrial oils

RENOLIN Xtreme Temp RANGE

These **universal high-performance, multigrade hydraulic oils** are suitable for use in stationary and mobile hydraulic systems. Benefits include improved efficiency and, in particular, increased service life and change intervals. The products have excellent low-temperature behavior and a wide temperature application range. Due to the high efficiency, energy and thus CO₂ can be saved. Products of this series meet the latest requirements of many mobile hydraulics manufacturers. Approvals according to Bosch Rexroth RD90235 and RDE90245 as well as Denison HF0, HF1, HF2 are available.

RENOLIN CLP VCI SERIES

The **special gear and corrosion protection oils based on mineral oil with VCI** (Vapour Corrosion Inhibitors) ensure reliable long-term corrosion protection in both the oil and vapour phases. The products are suitable for extended corrosion protection, especially in gearboxes that are stored and/or transported over a long period of time and equally for gearbox test rigs. They offer reliable wear protection, high scuffing resistance and good compatibility with gear oils. Accordingly, the products in the RENOLIN CLP VCI range can be used as fully approved CLP industrial gear oils in accordance with DIN 51517-3.

RENOLIN MR SERIES

The **lubricating and hydraulic oils** of the RENOLIN MR series are characterized by excellent cleaning and dirt-carrying capacity. Furthermore, the products offer special corrosion protection in addition to a long service life. They are suitable for all hydraulic systems that are exposed to large temperature fluctuations and humidity or operate outdoors, e.g. in sluices, weirs, machines in low ambient temperatures. The lubricating and hydraulic oils meet and exceed the requirements for hydraulic oils according to: DIN 51524-2: HLPD, ISO 67343-4: HM (with DD properties).

RENOLIN PG SERIES

The series consists of **fully synthetic gear and circulation oils based on special polyalkylene glycols (PAG)**, for highest thermal loads. The oils are characterized by their very high oxidation and aging stability, high viscosity index (shear stable) and excellent viscosity-temperature behavior. In addition, the oils have the highest load carrying capacity, low friction coefficients,

high FZG value, high micro-pitting resistance, excellent FE8 performance and very good pitting resistance. The oils of the RENOLIN PG series exceed the minimum requirements for lubricating oils CLP-PG according to DIN 51517-3; ISO 6743-6 and ISO 12925-1: CKC, CKD, CKE, CKSMP, CSPG, CTPG. Approvals from renowned gear manufacturers are available.

RENOLIN UNISYN XT SERIES

Fully synthetic high-performance industrial gear oils based on PAO (polyalphaolefins) of the latest generation. The gear oils have a very high, natural, shear-stable viscosity index and excellent low-temperature behaviour. Other advantages include excellent wear protection, high micropitting resistance and very good corrosion protection. RENOLIN UNISYN XT has clear advantages, not only over mineral oil-based industrial gear oils, but also in particular over industrial gear oils on a conventional PAO basis. This is reflected in the significantly improved viscosity-temperature behavior (VI), excellent low-temperature behavior, associated with a very wide operating temperature range as well as a higher additive reserve and better robustness in practical use. Extended oil change intervals possible. The industrial gear oils of the RENOLIN UNISYN XT series are approved by well-known gear manufacturers.

RENOLIN ZAF B HT SERIES

The RENOLIN ZAF B HT range excels through high thermal and oxidative resistance and excellent wear-protection characteristics. In combination with selected mineral oil-based solvent raffinates, the innovative zinc-free and ash-free additive technology guarantees excellent hydraulic and gear oil properties.

RENOLIN ZAF D HT PLUS

Universal zinc- and ash-free, detergent hydraulic oil and industrial gear oil with excellent aging stability and very high wear protection. Based on the latest low-sulfur and hydrogenated base oil generation and innovative additive technology. The RENOLIN ZAF D HT PLUS meets and exceeds the minimum requirements for hydraulic oils according to DIN 51524-2: HLPD, ISO 6743-4: HM and for gear oils acc. to DIN 51517-3: CLP and ISO 6743-6: CKC.

Application when Brugger value: $\geq 30\text{N/mm}^2$ is required.

Greases

RENOLIT LX SERIES

This **multi-purpose grease is based on the GII base oil generation and the latest additive technology**. With the new, improved formulation of RENOLIT LX 2, the range of applications is very broad: The grease is particularly suitable for use in rolling bearings, electric motor bearings, clutch release bearings of e.g. crane vehicles, construction machinery, forging presses, commercial vehicle wheel bearings and machine tools. The grease is water-resistant, ageing-resistant, thermally and mechanically highly stressable, stable in operation and is further characterized by good corrosion protection.

Cutting fluids

ECOCOOL® GLOBAL 1000

ECOCOOL® GLOBAL 1000 is a new state-of-the-art, boron-free, water-miscible metalworking fluid with exceptional quality properties for high-performance metalworking applications. With its innovative characteristics and advanced lubrication concept, ECOCOOL® GLOBAL 1000 sets a new standard in the industry, especially in the **aerospace, medical, semiconductor and many other industries**. The product has been approved by renowned machine tool manufacturers, including DMG MORI according to DMG MORI Standard 3.9.

ECOCOOL MACH 300

With its innovative formulation, ECOCOOL MACH 300 sets new standards in terms of workplace safety and environmental protection. It is free from hazardous substances listed as SVHC (Substances of Very High Concern) under the REACH regulation, making it a reliable and responsible choice for metalworking companies. To ensure its performance and compatibility, ECOCOOL MACH 300 has undergone rigorous testing and has been approved by various machine manufacturers. The versatility of ECOCOOL MACH 300 makes it an ideal solution for **heavy-duty machining and a wide range of machining processes, including reaming, milling, tapping and deep hole drilling**. ECOCOOL MACH 300 is suitable for various materials such as **steel, aluminium, titanium, nickel alloys and lead-free non-ferrous metals**.

Corrosion preventives

ANTICORIT BGI SERIES

In addition to the oily protective film, this series of corrosion protection oils also offers additional vapor phase corrosion protection (VCI, Vapor Corrosion Inhibitors). This also protects surfaces that have not been completely wetted. The products of the ANTICORIT BGI range are one of the **standard preservatives of leading European bearing manufacturers** and are available in various viscosity settings. The products are easy and versatile to use and SVHC-free.

ANTICORIT CPX®

With its ANTICORIT CPX® range, FUCHS has developed a new formulation category for **long-term corrosion protection** (10 years). This new wax system guarantees controlled runoff inhibition, both at increased temperatures and at normal ambient temperatures, without compromising penetration into gaps and flanges. It also easy to remove. Individual parameters – such as drying time, run-off tendency, period of corrosion protection and film flexibility – can be customized according to customer requirements. CPX® technology is extremely versatile and suitable for a whole host of different applications, whether cavity protection, long-term warehousing or transport protection.

ANTICORIT DF SERIES

The products of the ANTICORIT DF series are characterized by their **simple and versatile applicability**. The protective films formed are very thin and can be oily or waxy, depending on the product type. The formulation of the products in the ANTICORIT DF range enables **rapid and intensive water displacement** and clear phase separation between water and product. All products are generally very compatible with common re-lubricants, therefore rarely / no removal of the protective film is necessary before shoring. The worldwide uniform formulation and availability is another advantage of this product group.

INDUSTRIAL OILS

Many processes in the industry work perfectly only with specially tailored lubricant solutions.

For example, in the transmission of energy by pressure media (hydraulic fluids), in the gearing of driving forces (gear oils), in the power generation in power plants (turbine oils), at refrigeration (refrigeration oils) or compressed air production (air compressor oils) the respective industrial oils have a significant task.

In addition, FUCHS industrial lubricants can make a significant contribution to a improved productivity in many other applications. They can increase efficiency significantly and reduce energy consumption and associated CO₂ emissions.

Low Varnish turbine oils e.g. ensure trouble-free operation of power plants. Refrigeration oils adjusted to environmentally neutral refrigerants improve the environmental balance in the cold chain. Rapidly biodegradable lubricants are a powerful alternative to hydrocarbon-based lubricants.

Industrial Oils

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Industrial Oils



Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Machine Oil: AR								
RENOLIN AR 22 ■	General lubricating oil based on mineral oil. Exceeds the requirements of L-AN lubricating oils according to DIN 51501. AR 22: AN 150	888	240	150	14.6	96	-12	For lubrication systems without special requirements regarding ageing resistance, cold temperature behaviour, etc. Oil temperature should not exceed 70 °C. Lowest inlet temperature of the oil should be 5 °C above the pourpoint. For bearings and gearboxes at high loads but with low sliding speeds (below 10 m/s)

RENOLIN

Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Demulsifying Circulating, Spindle and Hydraulic Oils: HL / CL								
RENOLIN DTA 2 	Range RENOLIN DTA Hydraulic and lubrication oils based on selected mineral base oils with additives to improve ageing stability and corrosion protection. All RENOLIN DTA products are DIN 51524-1: HL hydraulic oils and DIN 51517-2: CL circulating oils based on mineral oil, demulsifying (water-separation), zinc-free. Fulfil and surpass the minimum requirements acc. to: DIN 51524-1: HL DIN 51517-2: CL ISO 6743-4: HL, ISO 6743-6 and ISO 12925-1: CKB.	805	100*	2.2	–	–	-27	For thermally-stressed bearings, gears and hydraulic systems with peak temperatures up to 120 °C. Lubrication oils without AW/EP additives.
RENOLIN DTA 5 		830	120	4.6	1.6	106	-40	Also suitable for hydrodynamic drives if HL or CL lubrication fluids are required.
RENOLIN DTA 10   		849	174	10	2.6	92	-27	VOITH Turbo couplings type T and S.
RENOLIN DTA 22 		865	210	22	4.2	94	-27	Suitable for Landis Lund machine tools, recommended for spindle lubrication (without AW/EP).
RENOLIN DTA 32   		874	222	32	5.4	102	-24	Demulsifying type
RENOLIN DTA 46  		874	228	46	6.8	101	-24	
RENOLIN DTA 68 		882	250	68	8.7	99	-18	
RENOLIN DTA 100  		881	248	100	11.2	97	-18	
RENOLIN DTA 150 		889	266	150	15.5	94	-15	
RENOLIN DTA 220 		893	280	220	18.8	95	-12	
RENOLIN DTA 320 		898	280	320	24.0	95	-12	

* Measured acc. to Pensky Martens (Flashpoint P.M.)

Industrial Oils

Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Zinc-containing Hydraulic Oils								
RENOLIN B 3 	Range RENOLIN B Lubrication and hydraulic oils with additives to improve the ageing and oxidation stability. Good wear protection, demulsifying (good water separation), good air release properties, zinc-containing AW/EP additive system. The RENOLIN B range meets and surpasses the minimum requirements of hydraulic oils acc. to DIN 51524-2: HLP ISO 6743-4: HM B 3: HLP 10 B 5: HLP 22 B 10: HLP 32 B 15: HLP 46 B 20: HLP 68 B 30: HLP 100	850	178	10	2.6	95	-42	Universal applicable hydraulic fluids if good ageing resistance, good wear protection and demulsifying properties are required.
RENOLIN B 5 		863	200	22	4.4	107	-27	Universal hydraulic fluids; synergistic acting and robust additives ensure good wear protection in stationary and mobile hydraulic systems, even at high load and high temperature.
RENOLIN B 10 		876	205	32	5.5	109	-24	Approvals: Denison HF0, HF1, HF2
RENOLIN B 15 		875	210	46	6.9	105	-24	Demulsifying type
RENOLIN B 20 		881	224	68	8.8	100	-24	
RENOLIN B 30 		883	232	100	11.1	96	-18	
RENOLIN B 10 PLUS 	Range RENOLIN B PLUS Lubrication an hydraulic oils, based on high-quality, hydrated base oils (Group II). Contains additives for excellent ageing and oxidation stability, the zinc-containing AW/EP additive system protects against wear at high pressure and load. Extended oil drain intervals are possible. Hydraulic oils according to DIN 51524-2: HLP and ISO 6743-4: HM.	840	170	10	2.7	104	-54	Suitable for all hydraulic systems especially if an approval according to Bosch Rexroth RDE 90235/ RDE 90245 is required. Group II base oil (Hydrogenated base oils), for HP-high-pressure application.
RENOLIN B 15 PLUS 		840	195	15	3.5	108	-48	Demulsifying type
RENOLIN B 22 PLUS 		845	220	22	4.4	108	-45	Approvals: Denison HF0, HF1, HF2 Bosch Rexroth RDE 90245
RENOLIN B 32 PLUS 		862	220	32	5.5	108	-39	
RENOLIN B 46 PLUS 		865	230	46	6.94	107	-36	
RENOLIN B 68 PLUS 		867	230	68	9.0	108	-33	
RENOLIN B 100 PLUS 		870	270	100	11.6	104	-33	
RENOLIN B 150 PLUS  (on request)		880	280	150	15.1	101	-18	

RENOLIN

Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Zinc-containing Hydraulic Oils								
RENOLIN B 15 HVI 	Range RENOLIN B HVI Hydraulic and lubricating oils (machine oils) with a high viscosity index and additives to improve ageing stability, corrosion protection and wear protection. The products of the RENOLIN B HVI range are HVLP hydraulic and circulating oils according to DIN 51524-3, mineral oil based, demulsifying and zinc-containing AW/EP additives. DIN 51524-3: HVLP ISO 6743-4: HV ISO 11158: HV Denison HF0, HF1, HF2	859	180	15	3.8	151	-45	RENOLIN B HVI oils are suitable for all hydraulic systems, especially when a high viscosity index is required, reduced viscosity during cold start-up, high viscosity at operating temperature. High VI provides multigrade characteristics. Energy saving through high volumetric efficiency. Demulsifying type Approval: Denison HF0, HF1, HF2
RENOLIN B 32 HVI   		871	178	32	6.3	152	-48	
RENOLIN B 46 HVI   		879	186	46	8.1	150	-45	
RENOLIN B 68 HVI  		868	240	68	11.0	154	-36	
RENOLIN B 10 HVI Plus 	Range RENOLIN B HVI Plus Hydraulic and lubricating oils based on highquality hydrated base oils (Group II). High viscosity index and excellent shear stability, in combination with extraordinary oxidation stability, effects in long lifetime. High wear protection by using zinc-containing AW/EP additives, demulsifying. DIN 51524-3: HVLP ISO 6743-4: HV ISO 11158: HV Denison HF0, HF1, HF2	837	170	10	3.0	171	-63	RENOLIN B HVI Plus oils are suitable for all stationary and mobile hydraulic systems when a high viscosity index and low cold-temperature viscosity is required. Extended oil change interval possible. High pressure applications are possible due to excellent AW/EP additive system. Approval: Denison HF0, HF1, HF2
RENOLIN B 15 HVI Plus 		844	190	15	3.8	148	-57	
RENOLIN B 22 HVI Plus 		845	210	22	4.9	152	-48	
RENOLIN B 32 HVI Plus  		846	230	32	6.3	151	-42	
RENOLIN B 46 HVI Plus  		856	240	46	8.2	152	-42	
RENOLIN B 68 HVI Plus 		854	260	66,5	10.8	153	-33	
RENOLIN B 100 HVI Plus 		867	260	102	14.0	140	-36	
RENOLIN B 150 HVI Plus 		876	260	151	18.0	132	-33	

Industrial Oils

Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Zinc-containing Hydraulic Oils								
RENOLIN D 7 PLUS 	Range RENOLIN D Plus Hydraulic oils with detergent properties and additives based on highquality hydrated base oils (Group II) to improve ageing resistance, corrosion protection and wear protection. Zinc-containing AW/EP additive systems, good viscosity-temperature behaviour. Hydrotreated base oils offer excellent oxidation stability.	832	176	6,8	2.1	106	-60	RENOLIN D Plus hydraulic oils can be used in hydraulic and circulating systems - excellent oxidation stability enables reliable operation even at high temperatures and thermal stress. DD-properties avoid deposits and sludge, free water is avoided by emulsifying properties, this protects components of corrosion.
RENOLIN D 22 PLUS 		854	218	22	4.4	106	-42	
RENOLIN D 32 PLUS 		861	236	32	5.5	106	-39	
RENOLIN D 46 PLUS 		866	252	46	6.9	106	-36	
RENOLIN D 68 PLUS 		869	258	68	8.9	105	-36	
RENOLIN D 22 HVI PLUS 	Range RENOLIN D HVI Plus Detergent multigrade hydraulic oils based on highquality hydrated base oils (Group II). Zinc-containing AW/EP additive system offers excellent wear protection. Good shear-stability, excellent oxidation stability and additives to improve ageing resistance offer long lifetime. DIN 51524-3: HVLDP ISO 6743-4: HV (with DD properties)	847	210	22	4.9	150	-48	RENOLIN D HVI Plus can be used in stationary and mobile hydraulic equipment like machine tools or excavators. The high viscosity index and good cold-temperature behaviour offers advantages at changing environmental conditions.
RENOLIN D 32 HVI PLUS 		850	230	32	6.3	150	-42	
RENOLIN D 46 HVI PLUS   		858	238	46	8.2	150	-42	Hydraulic fluid with good DD-properties
RENOLIN D 68 HVI PLUS 		858	254	68	10.7	145	-39	

RENOLIN

Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Zinc-containing Hydraulic Oils								
RENOLIN Xtreme Temp 32   	Range RENOLIN Xtreme Temp Universal, high-performance hydraulic oils with high viscosity index and excellent shear stability (VI ≥ 180). Based on special hydrogenated base oils, very good ageing behaviour, long lifetime, excellent corrosion protection and very good zinc-containing wear protection for high pressure - good demulsifying properties. Fulfil and surpass: DIN 51524-3: HVLP ISO 6743-4: HV ISO 11158: HV	845	216	32	6.9	180	-45	Universal high-performance multigrade hydraulic oils for stationary and mobile hydraulic systems, improved efficiency, increasing oil change intervals. Multigrade characteristics through high, shear-stable viscosity index. Energy and fuel saving through high volumetric efficiency. Approvals: Denison HF0, HF1, HF2 Bosch Rexroth RD90235 and RDE90245
RENOLIN Xtreme Temp 46    		853	230	48	9.3	180	-42	
RENOLIN Xtreme Temp 32 PLUS  		861	216	32	6.9	183	-33	Slightly detergent, HVLP (D) high performance multigrade hydraulic oils for stationary and mobile hydraulic systems surpass HVLDP according to DIN 51524-3, wide temperature window, excellent shear stability. Help to avoid stick-slip problems, especially at low speed and high load. Energy and fuel saving through high volumetric efficiency.
RENOLIN Xtreme Temp 46 PLUS    	For high-pressure applications; reduce friction especially in mixed friction conditions. DIN 51524-3: HVLP(D) ISO 6743-4: HV ISO 11158: HV	855	234	48	9.3	181	-34	
RENOLIN LIFT 22  	Range RENOLIN LIFT Special detergent type of hydraulic oils for elevators, hydraulic conveyors and fork lifters. Reliably prevents stick-slip, especially at high loads and low speeds. Zinc-containing; fulfil and surpass requirements according to: DIN 51524-2: HLPD ISO 11158: HM ISO 6743-4: HM/HG	869	210	22	4.3	100	-30	Fork lifters, elevators, hydraulic transport mechanisms, stationary and mobile hydraulics. Protection against stick-slip.
RENOLIN LIFT 32  		877	210	32	5.3	96	-30	
RENOLIN LIFT 46 		881	210	46	6.8	101	-27	

Industrial Oils

Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Zinc-containing Hydraulic Oils								
RENOLIN MR 0 VG 2 	Range RENOLIN MR RENOLIN MR products are special HLPD lubricating and hydraulic fluids according to DIN 51502 with outstanding corrosion protection and powerful cleaning and dirt carrying capacity. Zinc-containing, detergent and dispersant. RENOLIN MR oils are used in many hydraulic systems as problem solvers, especially when standard oils cannot fulfil all requirements. Excellent oxidation stability based on highquality hydrated base oils (Group II). RENOLIN MR oils fulfil and surpass the requirements for hydraulic oils according to: DIN 51524-2: HLPD ISO 6743-4: HM with high DD-performance	823	75	2,2	–	–	-54	<u>RENOLIN MR 0, 1 and 3:</u> For machine tool spindles and roller bearing spindles in the textile industry.
RENOLIN MR 1 VG 5 		834	135	4,6	1.7	–	-54	
RENOLIN MR 3 VG 10 		840	170	10	2.7	106	-54	
RENOLIN MR 5 VG 22 		846	210	22	4.5	118	-45	<u>RENOLIN MR 5, 10, 15 and 20:</u> Universal hydraulic oils with outstanding corrosion protection up to continuous temperatures of 100 °C. For smaller gear boxes, in particular with electrical multi-plate clutches. High DD performance
RENOLIN MR 10 VG 32 		866	220	32	5.5	109	-39	
RENOLIN MR 15 VG 46 		868	230	46	7.0	107	-36	
RENOLIN MR 20 VG 68 		871	230	68	9.0	107	-33	
RENOLIN MR 30 VG 100 		874	270	100	11.6	104	-33	
RENOLIN MR 40 VG 150 		881	280	150	15.1	101	-18	
RENOLIN MR 310 	Hydraulic and lubricating oils with extremely high viscosity index as well as outstanding cleaning properties and sludge carrying capacity. HVLPD according to DIN 51502 together with DIN 51524-HVLPD ISO 6743-4: HV	855	118	15	5.4	360	-48	<u>MR 310, 520 and 1030:</u> For all hydraulic systems which are subject to a wide temperature range or which are operated outdoors, e.g. in flood gates, for machines in low temperature environments.
RENOLIN MR 520 		886	154	32	8.0	270	-57	
RENOLIN MR 1030 		873	214	68	11.0	154	-36	

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Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Zinc-containing Hydraulic Oils								
RENOLIN MR 22 MC   	Range RENOLIN MR MC Universal lubricating and hydraulic oils based on MC base oils with high viscosity index (shear-stable). Excellent oxidation stability, outstanding cleaning properties and sludge carrying capacity. Fulfils and surpasses the requirements acc. to: DIN 51524-3: HVLDP ISO 6743-4: HV (with dd-properties)	847	210	22	4.9	150	-48	Same application as for RENOLIN MR in addition to those which require oils with high viscosity index. Allow oil change intervals to be extended and grades to be rationalized. Multigrade characteristics. Very wide operating temperature window. Energy saving through high volumetric efficiency. MC base oils = hydrotreated base oils (Group III)
RENOLIN MR 32 MC    		848	230	32	6.3	150	-45	
RENOLIN MR 46 MC    		854	240	46	8.1	150	-42	
RENOLIN MR 68 MC    		856	260	68	10.9	150	-39	
RENOLIN MRX 46  	Selected, and high quality special refined oil with additives to maximize ageing protection, reduce wear and friction. High detergent and sludge carrying capacity; excellent protection against corrosion: MRX 46: HLPD 46	884	232	46	6.9	103	-24	The RENOLIN MRX 46 hydraulic and lubricating oil is especially recommended for systems which are exposed to a high risk of dust/ dirt or water contamination, e.g. for mobile hydraulic systems, for running-in procedures or in agriculture and forestry applications.
RENOLIN FF 68 Spindelöl Packages on request	Ultra-pure and fine-filtrated lubrication oil for tool spindles - formulated on special partly synthetic base oils. A very high and shear stable viscosity index guarantees a stable lubricant film, even at high temperatures. The complex filtration process effects a very good cleanliness of 15/13/10 acc.to ISO 4406. Very good detergent and dispersant properties. Fulfils and surpasses: DIN 51524-3: HVLP-D ISO 6743-4: HV (with DD properties)	870	253	68	11.2	157	-42	For lubrication of tool spindles. High dirt carrying property prevents from sludge and varnish, partly synthetic base oils guarantee very good oxidation and ageing stability.

Industrial Oils

Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Zinc- and Ash-free Hydraulic Oils (ZAF)								
RENOLIN MWB 46 	Selected solvent base oil with additives to improve oxidation and ageing resistance. Excellent corrosion and wear protection, good load carrying capacity and low friction. High performance reserves. Zinc-free AW/EP additive system Fulfills and surpasses requirements acc. to: DIN 51524-2: HLPD ISO 6743-4: HM	882	218	46	6.9	105	-24	Heavy-duty HLPD hydraulic and circulating oil (CLP) for all highly stressed hydraulics. Excellent wear protection. High load carrying capacity. High load capacity according to Bruggen of ≥50 N/mm ² , e.g. hydraulic presses in the automotive industry.
RENOLIN ZAF B 10 HT 	Range RENOLIN ZAF B HT Zinc- and ash-free, demulsifying hydraulic and gear oils with good ageing stability and oxidation resistance. Excellent wear protection for gears (FZG > 12) and roller bearings. High corrosion protection, even in the presence of water, excellent non-ferrous metal compatibility. Fulfills and surpasses requirements acc. to: DIN 51524-2: HLP ISO 6743-4: HM DIN 51517-3: CLP ISO 6743-6: CKC DBL 6713-13: HLP	848	170	10	2.7	100	<-54	Demulsifying, zinc- and ash-free HLP hydraulic and CLP lubricating oils with good ageing resistance for all hydraulic systems, hydraulic presses or machine tools. Bruggen ≥ 30N/mm ²
RENOLIN ZAF B 22 HT 		863	210	22	4.4	106	-33	
RENOLIN ZAF B 32 HT   		875	220	32	5.4	96	-33	
RENOLIN ZAF B 46 HT    		876	230	46	6.8	101	-24	
RENOLIN ZAF B 68 HT   		882	242	68	8.8	100	-21	
RENOLIN ZAF B 100 HT  		882	240	100	11.3	99	-18	
RENOLIN ZAF D 22 HT  	Range RENOLIN ZAF D HT Zinc- and ash-free lubricating and hydraulic oils with detergent and dispersant properties. Good ageing resistance, excellent wear protection and oxidation stability, good air release properties. Fulfil and surpass requirements acc. to: DIN 51524-2: HLPD ISO 6743-4: HM DIN 51517-3: CLP(D) ISO 6743-6: CKC	860	206	22	4.3	103	-33	Detergent, zinc- and ash-free hydraulic HLPD and lubrication oils (CLP) for all hydraulic drives even if thermally stressed. Also suitable for use as CLP lubricating oil. Bruggen ≥ 30N/mm ²
RENOLIN ZAF D 32 HT    		870	220	32	5.3	97	-33	
RENOLIN ZAF D 46 HT    		880	230	46	6.8	100	-27	
RENOLIN ZAF D 68 HT  		880	>230	68	8.8	100	-27	

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Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Zinc- and Ash-free Hydraulic Oils (ZAF)								
RENOLIN ZAF D 46 HT PLUS    	Universal zinc- and ash-free hydraulic fluid and lubricating oil, excellent ageing stability and high wear protection. Provides high deterging and dispersing properties. Fulfils and surpasses the requirements according to DIN 51524-2: HLPD ISO 6743-4: HM DIN 51517-3: CLP ISO 6743-6: CKC	866	230	46	6.9	106	-39	Detergent zinc- and ash-free hydraulic oils based on hydro-treated group II base oils with improved oxidation stability at high thermal stresses, for hydraulic presses. Brugger ≥ 30 N/mm ² Extended lifetime, excellent air release, detergent/dispersant type
RENOLIN ZAF D 46 White Packages on request	Universal zinc- and ash-free detergent type of hydraulic fluid and industrial gear oil, excellent ageing stability, very high wear protection, latest base oil generation, hydrotreated base oils and low sulphur content. Fulfils and surpasses requirements according to: DIN 51524-2: HLPD ISO 6743-4: HM (with DD-properties)	865	>230	46	6.9	106	-39	Excellent for all applications in mobile and stationary hydraulic systems, recommended according to DIN 51524-2 (HLP). Based on hydrotreated group II base oils, "non-discoloration oil" .
RENOLIN ZAF B 46 HT-LCF Packages on request	Range RENOLIN ZAF B HT-LCF Demulsifying, zinc- and ashfree hydraulic oils based on sustainable raw materials. By the use of re-refined base oils, in combination with modern zinc and ashfree additive technology, the CO ₂ footprint can be improved by up to 30% in comparison to conventional hydraulic oils.	849	248	23	5.8	125	-33	For use in hydraulic systems, hydraulic presses or machine tools as demulsifying universal circulating oil, gear oil or hydraulic fluid.
RENOLIN ZAF B 46 HT-LCF Packages on request	Fulfill and surpass requirements on HLP hydraulic oils acc. to DIN 51524-2 and CLP gear oils acc. to DIN 51517-3	861	244	46	7.1	115	-30	
RENOLIN ZAF D 32 HT-LCF Packages on request	Range RENOLIN ZAF D HT-LCF Zinc- and ashfree hydraulic oils based, on sustainable raw materials, with detergent / dispersant properties. They are designed by use of re-refined base oils, in combination with modern zinc- and ashfree additive technology. The CO ₂ footprint can be reduced by up to 30%, compared to conventional hydraulic oils.	849	248	23	5.8	125	-33	For use in hydraulic systems, hydraulic presses or machine tools as universal circulating oil, gear oil or hydraulic fluid with detergent / dispersant properties.
RENOLIN ZAF D 46 HT-LCF Packages on request	Fulfill and surpass requirements on HLP hydraulic oils acc. to DIN 51524-2 and CLP gear oils acc. to DIN 51517-3	861	244	46	7.1	115	-30	

Industrial Oils

Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Zinc- and Ash-free Hydraulic Oils (ZAF)								
RENOLIN ZAF 5 DT 	Range RENOLIN ZAF DT Selected solvent extracts with special additives to improve corrosion protection and wear protection. High load carrying capacity acc. to Brugger. Detergent and dispersant. Fulfil and surpass DIN 51524-2: HLPD ISO 6743-4: HM (with dd-properties) DIN 51517-3: CLP(D) ISO 6743-6: CKC (with dd-properties)	838	116	5	1.7	99	-40	Heavy-duty hydraulic and circulating oils with outstanding detergent and dispersant properties. Very good ageing resistance, good corrosion protection and excellent load carrying capacity. Daimler DBL 6721 for machine tools Brugger value ≥ 50 N/mm ²
RENOLIN ZAF 10 DT 		848	154	10	2.7	108	-30	
RENOLIN ZAF 15 DT 		865	190	15	3.3	86	-27	
RENOLIN ZAF 22 DT 		866	198	22	4.4	109	-27	
RENOLIN ZAF 32 DT 		876	210	32	5.4	102	-24	
RENOLIN ZAF 46 DT 		876	218	46	6.8	101	-24	
RENOLIN ZAF 68 DT 		879	224	68	8.9	104	-18	
RENOLIN ZAF 100 DT 		882	220	100	11.3	99	-18	
RENOLIN ZAF 150 DT 		887	222	150	14.6	96	-15	
RENOLIN ZAF 32 MC 	Range RENOLIN ZAF MC Lubricating and hydraulic oils based on group III base oils with selected additives. Very good oxidation and ageing stability, very good corrosion protection and high wear protection. High viscosity index (shear stable). Fulfil and surpass DIN 51524-3: HVLP ISO 6743-4: HV DIN 51517-3: CLP ISO 6743-6: CKC DBL 6713: HLP, HVLP	840	220	32	6.3	149	-45	Shear stable, zinc- and ash-free hydraulic and circulating oils with high viscosity index. Based on MC hydrotreated group III base oils. Oil drain intervals might be extended and grades can be rationalized (multigrade characteristics). Energy saving through high efficiency. Denison HF0 approval Bosch Rexroth approval RDE 90245 and RD 90235
RENOLIN ZAF 46 MC 		843	238	46	8.0	148	-45	
RENOLIN ZAF 68 MC 		854	238	68	10.6	146	-42	

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Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Zinc- and Ash-free Hydraulic Oils (ZAF)								
RENOLIN ZAF 520 	Zinc- and ash-free special hydraulic and lubricating oil with extreme high viscosity index. Thus very good viscosity-temperature behaviour. Fulfills and surpasses DIN 51524-3: HVLP; ISO 6743-4: HV (detergent)	856	160	33	9.2	277	-48	For all hydraulic systems with high temperature variations also for low-temperature applications.
RENOLIN ZAF 15 LT  	Range RENOLIN ZAF LT Zinc- and ash-free hydraulic oils with very high viscosity index for low-temperature applications. Demulsifying with additives to improve ageing stability and corrosion protection. Surpass the requirements of DIN 51524-3: HVLP; ISO 6743-4: HV	873	>90	14	5.3	387	<-60	Developed for the use in applications with very low ambient temperatures in mobile and stationary equipment; latest additive technology. (ZAF)
RENOLIN ZAF 32 LT 	Demulsifying type. Kinematic viscosity at -40 °C: - RENOLIN ZAF 15 LT = 2380 mm ² /s - RENOLIN ZAF 32 LT = 4850 mm ² /s	853	135	32	9.5	300	<-54	
RENOLIN ZAF 32 XHV 	Newly designed zinc- and ash-free hydraulic oil with very high shear stable viscosity index, which allows outstanding low-temperature properties. Demulsifying, with additives for an excellent compatibility with non-ferrous metals and a high wear protection. Fulfills the requirements according to DIN 51524-3: HVLP and ISO 6743-4: HV (with exception of the flashpoint).	853	135	32	9.5	300	≤-51	Developed for applications which require a very good flow behavior also at low temperatures. Kinematic viscosity at -40 °C = 2150 mm ² /s
RENOLIN HighPress 46 DLC   	Zinc- and ash-free high performance EP hydraulic oil for Ortlinghaus lamellar clutch systems (hydraulic presses). Excellent detergent and dispersant properties, very good wear protection (FZG failure load stage 12 / Bruggen value 50 N/mm ²). Fulfills and surpasses the requirements on hydraulic oils acc. to DIN 51524-2: HLPD ISO 6743-4: HM (with dd-properties)	877	212	46	6.8	100	–	Especially suitable for the use in systems with Ortlinghaus lamellar clutches. Defined friction coefficients are proved in use (static and dynamic). Müller Weingarten DT 55005 Ortlinghaus lamellar clutches ON 9.2.19 Also suitable for the use in circulation and bearing lubrication in all hydraulic presses.
RENOLIN PG 32 	Range RENOLIN PG Fully-synthetic hydraulic and lubricating oils based on polyglycols for highest requirements regarding thermal stability, high viscosity index. Not miscible or compatible with mineral oils, water-soluble, rapidly biodegradable acc. to OECD 301. Classification acc. to ISO 15380: PG 32: HEPG 32 PG 46: HEPG 46 Fulfil and surpass the requirements on hydraulic oils HVLP acc. to DIN 51524-3.	1022	220	32	7.1	194	-51	For highly loaded hydraulic and lubricating systems with extreme thermal load. Please consider change-over guidelines. Water-soluble PAG hydraulic oil, not miscible or compatible with mineral oils or PAO oils.
RENOLIN PG 46 		1024	240	46	9.7	203	-48	

Industrial Oils

Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Fire-resistant Hydraulic Fluids								
HYDROTHERM 46 M 	Based on water-glycol; tested and approved acc. to 6th and 7th Luxembourg report. Good wear protection, very good corrosion protection, extreme ageing resistance. HFC hydraulic oil acc. to DIN 51502: HFC and VDMA 24317: HFC, ISO 12922: HFC46.	1084	–	46	9.5	195	-42	For all hydraulic systems in fire hazard areas (mining, steel industry, aluminium industry, foundry, forging, glass industry). Suitable for all materials, paintings and elastomers which are resistant to water-glycol. Monoethylene-free and amine-free.
HYDROTHERM 42 HFC 	New developed HFC fluid, fire-resistant hydraulic fluid (according to ISO 12922), based on water-glycol with the latest additive technology. Excellent wear protection and superior air release properties in combination with very good corrosion protection. Fulfills and surpasses requirements on HFC fluids according to: DIN 51502: HFC ISO 12922: HFC VDMA 24317: HFC	1084	–	42	8.9	195	<-60	For hydraulic systems in fire hazard areas, if HFC fluids are required. Fulfills requirements according to 7th Luxembourg Report.
RENOSAFE DU 46 	Water-free fire-resistant fluid based on special esters. Voith-Turbo Approval, HFUD acc. to ISO 12922	922	>280	48	9.7	188	-36	Fire-resistant hydraulic fluid based on special organic esters - HFUD. Optimized for turbo couplings. Compatible with mineral oils. Compatibility with sealings, tubes and paintings has to be checked.
RENOSAFE TURBO 46 HF 	Water-free, fire-resistant, special, thermally stable phosphoric acid esters. Good demulsibility (water separation), low foaming tendency, high oxidation stability. ISO 12922: HFDR46	1150	>262	44.5	5.0	-36	-24	Hydraulic fluid in fire hazard areas. For electrohydraulic controlled oil circuits in steam turbines, bearing lubrication for steam- and gas turbines, phosphoric ester. New HFDR technology.
RENOSAFE FireProtect 46 	Range RENOSAFE FireProtect Water-free, fire-resistant hydraulic fluids based on latest ester and additive technology, type HFUD.	920	316	50	10.1	195	-48	For the use as fire-resistant hydraulic oils based on organic esters. Type HFUD for all hydraulic applications in fire hazard areas or glowing metal surfaces such as in die-casting machines, steel mills, continuous casting machines, hot rolling mills, coking plants and other mobile and stationary hydraulic systems, excellent lifetime, excellent yellow metal compatibility.
RENOSAFE FireProtect 68 	Highest oxidation and thermal stability, excellent non-ferrous metal compatibility, hydrolytic stability, very robust and reliable wear protection. Multigrade characteristics by high, shear stable viscosity index. Biodegradable acc. to OECD 301 B >60%. Surpass the requirements on HFUD oils acc. to ISO 12922.	932	316	70	12.9	187	-45	Approved for use in Voith T and TP couplings.

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Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour point °C	Main application area
Gear and Circulating Oils								
RENOLIN CLP 68 📦 🚰	Range RENOLIN CLP High-performance gear and circulating oils with good ageing stability and additives to improve corrosion protection (also combat steel and non-ferrous metal corrosion caused by moisture). Outstanding antiwear characteristics – good EP / AW performance, excellent scuffing, load carrying capacity and protection against micropitting, excellent FE8 roller bearing wear protection, good demulsifying properties, very good foaming behaviour, zinc and ash-free and silicone oil-free. RENOLIN CLP oils fulfil and exceed the minimum requirements of CLP industrial gear oils acc. to DIN 51517-3, ISO 6743-6 and ISO 12925-1: CKC, CKD, CKSMP. US Steel 224, David Brown S1.53.10.	883	>230	68	8.7	99	-24	Universally useable gear oils for industrial applications such as in bearings, joints, spur gears, bevel gears and worm gears and whenever the manufacturer recommends a mineral oil of type CLP. Approved by leading gear box manufacturers. Mineral oil based Demulsifying
RENOLIN CLP 100 📦 🚰 🚚 🚛		885	>230	100	11.3	99	-24	
RENOLIN CLP 150 📦 🚰 🚚 🚛		889	>230	150	14.5	96	-24	
RENOLIN CLP 220 📦 (60 L, 205 L) 🚰 🚚		892	>240	220	18.9	96	-21	
RENOLIN CLP 320 📦 🚰 🚚 🚛		897	>240	320	24.0	95	-12	
RENOLIN CLP 460 📦 🚰 🚚 🚛		901	>240	460	30.4	95	-12	
RENOLIN CLP 680 📦 🚰 🚚		902	>240	680	40.0	97	-12	

Industrial Oils

Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Gear and Circulating Oils								
RENOLIN CLP 46 PLUS  (200 L)	Range RENOLIN CLP PLUS High-performance gear and circulating oils offering excellent wear protection, good EP performance and excellent corrosion protection. Carefully selected antioxidants guarantee good ageing stability. Special detergent/dispersant additives offer very good cleaning properties and dirt carrying capacity. RENOLIN CLP PLUS oils fulfil and surpass the minimum requirements on lubricating oils acc. to DIN 51517-3: CLPD, ISO 6743-6 and ISO 12925-1: CKC, CKD, CKSMP. RENOLIN CLP PLUS oils were developed especially for the extreme conditions (e.g. in surface mining).	882	200	46	6.8	102	-27	Special gear oils for highly stressed mechanical industrial gears, spur gears, double-spur gears, bevel gears and worm gears. Long-life oils (tested and approved for 30,000 hours in brown coal open pit mining conveyors/gears). Especially for use in severe conditions where dirt, dust and water contamination prevail. Increased oxidation stability. Mineral oil based
RENOLIN CLP 68 PLUS  (200 L)		884	236	68	8.7	100	-27	
RENOLIN CLP 100 PLUS  		887	240	100	11.2	97	-24	
RENOLIN CLP 150 PLUS 		892	250	150	14.8	97	-24	
RENOLIN CLP 220 PLUS    		895	260	220	18.9	96	-24	
RENOLIN CLP 320 PLUS  		898	255	320	24.0	95	-18	
RENOLIN CLP 460 PLUS 		902	270	460	30.2	94	-14	
RENOLIN CLP 680 PLUS  		902	270	680	39.6	95	-17	
RENOLIN AWD 68 	Range RENOLIN AWD Special gear and circulating oils for highest requirements on wear protection. Special additives reduce friction and form reaction layers which offer excellent wear protection in extreme mixed friction and load conditions. Brugger value (typical: >75 N/mm ²), excellent FE8 roller bearing wear protection, good dirt carrying capacity (detergent / dispersant), zinc and silicone oil-free, high additive reserves. The RENOLIN AWD series surpasses the minimum requirements on industrial gear oils CLPD acc. to DIN 51517-3, ISO 6743-6 and ISO 12925-1: CKC, CKD, CKSMP. Approved by leading press manufacturers.	882	221	68	8.9	105	-24	For highly-stressed industrial gear boxes and circulating systems, especially when good load carrying capacity in extreme mixed friction is required, e.g. press lines in the automotive industry. Mineral oil based
RENOLIN AWD 100 		886	222	100	11.2	97	-24	
RENOLIN AWD 150    		894	208	150	14.6	96	-12	
RENOLIN AWD 220 		896	210	220	18.7	95	-12	

RENOLIN

Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Fully Synthetic Gear and Circulating Oils								
RENOLIN PG 68 	Range RENOLIN PG Fully synthetic gear and lubricating oils based on special polyalkylene glycols (PAG) for applications with extreme thermal loads. Very high oxidation and ageing stability, high viscosity index (shear stable), good viscosity-temperature behaviour, excellent load carrying capacity, low friction coefficients, high FZG, very good pitting and high micropitting resistance, excellent FE8 performance. The oils of the RENOLIN PG series surpass the minimum requirements of CLP-PG lubricating oils acc. to DIN 51517-3, ISO 6743-6 and ISO 12925-1: CKC, CKD, CKE, CKSMP, CSPG, CTPG. Approved by leading gear box manufacturers.	1035	240	68	13.8	212	-48	For gear boxes operating in extreme thermal and mechanical conditions, such as worm gears. Can also be used as compressor oils for process gases such as methane, ethane, propane, etc. due to low hydrocarbon gas solubility. And might be used for calendar lubrication. RENOLIN PG is especially suitable for steel / bronze sliding pairs in worm gears. Not miscible or compatible with mineral oils, ester oils and PAO-based oils. Change-over guidelines must be observed.
RENOLIN PG 100 		1043	260	100	19.6	220	-48	
RENOLIN PG 150 		1051	260	145	27.0	224	-48	
RENOLIN PG 220    		1075	240	220	36.8	220	-33	
RENOLIN PG 320 		1075	240	320	54.4	237	-33	
RENOLIN PG 460    		1075	280	460	75.1	245	-33	
RENOLIN PG 680 		1075	280	680	110.3	261	-33	
RENOLIN PG 1000 		1075	280	1000	162.0	281	-33	
RENOLIN PG 1500 		1078	280	1500	240.0	300	-18	

Based on Polyglycol

Industrial Oils

Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Fully Synthetic Gear and Circulating Oils								
RENOLIN UNISYN XT 68 	Range RENOLIN UNISYN XT Fully-synthetic industrial gear oils based on new, innovative polyalphaolefins with very high, natural, shear stable viscosity index and excellent low temperature behaviour. Excellent wear protection, high micropitting resistance and very good corrosion protection. RENOLIN UNISYN XT oils exceed the requirements on industrial gear oils CLP-HC acc. to DIN 51517-3, ISO 6743-6, ISO 12925-1: CKC, CKD, CKE, CKSMP and AGMA 9005/E02: EP.	850	238	68	11.0	154	-54	Suitable for the lubrication of gears and bearings. For the use in applications with high requirements on wide temperature range. Extremely low viscosity at low temperatures. ISO VG 220 and 320 for wind turbine applications. Approved by leading gear box manufacturers. Based on mPAO
RENOLIN UNISYN XT 100 		850	238	100	15.3	162	-48	
RENOLIN UNISYN XT 150 		850	238	150	21.4	168	-45	
RENOLIN UNISYN XT 220 		860	242	220	29.4	174	-42	
RENOLIN UNISYN XT 320 		860	242	320	40.2	179	-42	
RENOLIN UNISYN XT 460 		860	242	460	54.5	188	-42	
RENOLIN UNISYN XT 680 		860	244	680	75.5	192	-39	
RENOLIN UNISYN XT 1000 		860	244	1000	101.0	195	-33	
RENOLIN UNISYN CLP 68 	Range RENOLIN UNISYN CLP Fully-synthetic PAO-based industrial gear oils with increased ageing stability, very good load carrying capacity and excellent wear protection. RENOLIN UNISYN CLP provides a high micropitting resistance, a good air release and very good filtration behaviour. Fulfill resp. surpass the minimum requirements acc. to DIN 51517-3: CLP; ISO 6743-6 and ISO 12925-1: CKC, CKD, CKE, CKSMP and AGMA 9005/E02: EP.	848	240	68	10.7	147	-56	Suitable for the lubrication of gears and bearings. For the use in applications with high requirements on wide temperature range. Extremely low viscosity at low temperatures. ISO VG 220 and 320 for wind turbine applications. Approved by leading gear box manufacturers. Based on PAO
RENOLIN UNISYN CLP 150 		853	250	150	19.6	150	-45	
RENOLIN UNISYN CLP 220 		854	260	220	26.7	155	-42	
RENOLIN UNISYN CLP 320 		860	260	320	35.0	155	-42	
RENOLIN UNISYN CLP 460 		861	300	460	45.6	155	-39	
RENOLIN UNISYN CLP 680 		862	300	680	62.2	160	-33	
RENOLIN UNISYN CLP 1000 		864	300	1000	92.0	179	-33	

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Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Gear and Circulation Oils								
RENOLIN CLPF 100 SUPER 	Range RENOLIN CLPF SUPER with MoS₂ EP industrial gear oils containing MoS ₂ (molybdenum disulphide) with synergistically active EP / AW additives and physically active anti-wear layers (MoS ₂). The MoS ₂ components guarantee excellent lubricity at low temperature over a wide range of working conditions. The MoS ₂ as solid lubricant ensures reliable wear protection even under shock loads and unfavourable operating conditions. The MoS ₂ dampens vibrations and noise. Very good wear protection in mixed friction areas, good dirt carrying capacity, excellent foaming behaviour, very good bearing wear protection - excellent FE8 performance, zinc and silicone oil-free. RENOLIN CLPF SUPER series surpasses the minimum requirements on industrial gear oils DIN 51517-3: CLPF ISO 6743-6 and ISO 12925-1: CKC, CKD	888	240	100	11.2	98	-21	For highly stressed gear boxes at low circumferential speeds and high loads, also for shock loads and unfavourable operating conditions, for noise-dampening. Also for spindle and gear box applications in forging presses.
RENOLIN CLPF 220 SUPER 		896	260	220	18.8	95	-21	
RENOLIN CLPF 320 SUPER 		897	255	320	24.0	95	-14	
RENOLIN CLPF 460 SUPER 		902	270	460	30.4	95	-12	
RENOLIN CLPF 680 SUPER  		918	270	680	36.8	88	-10	
RENOLIN CLPF 1500 SUPER 		928	240	1500	70.5	104	-12	
RENOLIN HighGear 150 	Range RENOLIN HighGear RENOLIN HighGear oils are based on selected mineral oils. Synergistic additives provide outstanding wear protection of these new high-tech gear oils. Highly effective tribo-protection layers reliably protect wetted machine components against wear. This new additive technology is also referred to as a smoothening PD (plastic deformation) reaction mechanism. These additives have a noticeable smoothening effect on surface roughness. DIN 51517-3: CLP, ISO 6743-6 and ISO 12925-1: CKC, CKD, CKE, CKSMP	894	>210	150	14.6	96	-21	RENOLIN HighGear can be used both in pre-damaged gear boxes and machine components to increase service life as well as in new gear boxes (spur, bevel, planetary and worm gears) to reduce friction, wear and noise in extreme conditions.
RENOLIN HighGear 220 		899	>210	220	19.0	97	-18	
RENOLIN HighGear 320 		904	>210	320	24.3	97	-12	
RENOLIN HighGear 460  		909	>210	460	30.8	97	-9	
RENOLIN HighGear 680 		907	>210	680	41.5	101	-9	

Industrial Oils

Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Special Gear and Circulating Oils								
RENOLIN HighGear Synth 220 	Range RENOLIN HighGear Synth RENOLIN HighGear Synth is based on synthetic polyalphaolefins (PAO). Special synergistic additives provide outstanding wear protection of these new high-tech gear oils. Highly effective tribo-protection layers reliably protect wetted machine components against wear. RENOLIN HighGear Synth oils have a high, natural and shear stable viscosity index and are suitable for both high and low temperature applications. High thermal and oxidation stability allow oil change intervals to be extended. DIN 51517-3: CLP; ISO 6743-6 and ISO 12925-1: CKC, CKD, CKE, CKSMP.	873	220	220	23.6	133	-33	RENOLIN HighGear Synth can be used both in pre-damaged gear boxes and machine components to increase service life as well as in new gear boxes (spur, bevel, planetary and worm gears) to reduce friction, wear and noise in extreme conditions. Synthetic PAO components help reduce friction, enable lower operating temperatures and can increase efficiency. Excellent low-temperature characteristics, high, shear stable viscosity index. Based on PAO
RENOLIN HighGear Synth 320 		876	220	320	31.2	135	-34	
RENOLIN MORGEAR 100 	Range RENOLIN MORGEAR High-performance circulating oils based on mineral oil, for the lubrication of MORGEOIL bearings. Mild EP/AW additives provide good wear protection, synergistically acting additives ensure good ageing stability and excellent demulsibility (very good water separation). ISO 6743-6 and DIN 51517: CL(P) ISO 12925-1: CKB.	888	248	100	11.1	96	-19	For the lubrication of MORGEOIL bearings. RENOLIN MORGEAR oils fulfil and surpass the requirements of DANIELI (Italy) and SMS. Mineral oil based
RENOLIN MORGEAR 220 		895	255	226	19.2	96	-10	
RENOLIN MORGEAR 460  		904	>270	470	31.1	96	-9	
RENOLIN MORGEAR 680  		915	252	682	39.2	95	-7	
RENOLIN CLP 150 VCI 	Range RENOLIN CLP VCI Special industrial gear oils based on mineral oil with VCI components (Vapour Corrosion Inhibitors). Excellent corrosion protection properties. Reliable long-term corrosion protection in the oil phase as well as in the vapour phase. Excellent wear protection, high scuffing protection, good compatibility with industrial gear oils and good elastomer compatibility. Fulfil and surpass the requirements on CLP industrial gear oils acc. to DIN 51517-3: CLP; ISO 6743-6 and ISO 12925-1: CKC / CKD as well as AGMA 9005/E02: EP.	889	250	150	14.5	96	-24	Recommended for applications with highly loaded spur gears, bevel gears, and worm gears. Also suitable in highly loaded bearings, joint bearings and pressure spindles. Especially for gears and components which are not used for a longer period of time or are stored before they are used and therefore a conservation must be applied. Contain VCI-components (Vapour Corrosion Inhibitors). Also recommended for gear test rigs (running-in oil). Mineral oil based
RENOLIN CLP 220 VCI 		892	254	220	18.9	96	-24	
RENOLIN CLP 320 VCI 		897	255	320	24.0	95	-12	
RENOLIN CLP 460 VCI  		901	270	460	30.4	95	-12	

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Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Special Gear and Circulating Oils								
RENOLIN UNISYN GEAR 220 VCI 	RENOLIN UNISYN GEAR 220 VCI* Fully-synthetic industrial gear oil based on PAO with excellent corrosion protection properties due to VCI components (Vapour Corrosion Inhibitors). Reliable long-term corrosion protection in the oil phase as well as in the vapour phase. Excellent wear protection, high scuffing protection, good compatibility with industrial gear oils. Fulfil and surpass the requirements on CLP industrial gear oils acc. to DIN 51517-3: CLP, ISO 6743-6 and ISO 12925-1: CKC, CKD as well as AGMA 9005/E02: EP.	855	260	220	27.3	160	-42	For the use in heavily loaded spur gears, bevel gears and worm gears with circulation oil system or oil injecting system. Especially for high operating temperatures. Contains VCI components (Vapour Corrosion Inhibitors). Based on PAO
RENOFLUID TF 1500  	Special EP-hydraulic- and gear oil based on high-performance base oils. With high ageing stability. FZG-Test A/8,3/90 Failure load stage > 12. DIN 51524-2: HLP ISO 6743-4: HM	870	224	32	5.4	102	-30	Power transmission oil for VOITH turbo gears, hydraulic oils for VOITH-turbo couplings. Also suitable as low viscosity, high-pressure gear oil especially with hydraulic controls and combined oil system. Voith Turbo approval. Mineral oil based
Special Corrosion Protection Concentrate								
RENOLIN VCI BOOST  (4 x 5 L)	Additive concentrate for the use in FUCHS gear, hydraulic and turbine oils. Contains VCI components (VCI = Vapour Corrosion Inhibitor).	905	155	105	12.5	112	-12	Universal VCI corrosion protection concentrate for the use in RENOLIN industrial oils based on mineral oil, PAO and esters. Easy dosage and usage. Recommended concentration: 2%

Industrial Oils



Product name	Description	Density at 15 °C kg/m³	Flash point Clev. °C	Kin. visc. at 40 °C mm²/s	Kin. visc. at 100 °C mm²/s	VI	Pour-point °C	Main application area
Slideway Oils								
RENEP CGLP 68 📁 📄 🚚	Range RENE CGLP Mineral oil based slideway oils with lubricity improvers and friction-reducing additives. Good EP performance. Protect against corrosion and prevent stick-slip. CGLP slideway oils according to DIN 51502. Demulsifying. Fulfills and surpasses the requirements acc. to DIN 51502: CGLP ISO 6743-13: GA, GB DIN 51517-3: CLP	879	220	68	8.6	99	-24	Excellent chemical compability with water-miscible metal working fluids. Slideway oils with very good demulsifying power, very low friction coefficient. HELLER approval. These slideway oils are especially suitable for the use with ECOCOOL cutting fluids. Proven good compatibility with many water-miscible cutting fluids. Approved by leading machine tool manufacturers. Mineral oil based
RENEP CGLP 150 📁 📄		892	230	150	14.6	96	-12	
RENEP CGLP 220 📁 📄 📄		895	240	220	19.0	96	-15	
RENEP 2 K 📁 📄	Range RENE K Slideway oils with special additives to reduce stick-slip especially for machine tools. Good detergent. Emulsifying. Detergent/dispersant type RENEP 2 K: CGLP 68 RENEP 5 K: CGLP 220	882	230	68	9.2	112	-27	Suitable for all slideway applications. RENE K series show good material compatibility. RENE 2 K is especially suitable for horizontal slideways. Also used for lubrication of bearings and gears and as hydraulic oil. RENE 5 K is used in highly loaded slideways and in vertical guideways. Mineral oil based
RENEP 5 K 📁 📄		900	248	220	19.9	104	-12	
RENEP 68 KN 📁 🚚	Range RENE KN Excellent adhesion provided by special additives which increase the adhesion to metal and plastic surfaces - "tacky" effect. Good EP performance. Protect against corrosion and prevent stick-slip. Advanced formulation. CGLP slideway oils according to DIN 51502. Demulsifying. RENE KN 68: CGLP 68 RENE KN 220: CGLP 220	880	220	68	9.1	118	-29	Excellent chemical compability with water-miscible metal working fluids. Slideway oils with very good demulsifying properties, low friction coefficient. Containing tackyfier. Approved by leading machine tool manufacturers. Heller-Approval Especially suitable for the use with ECOCOOL cutting fluids. Mineral oil based
RENEP 220 KN 📄		895	238	220	19.5	100	-17	

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Product name	Description	Density at 15 °C kg/m³	Flash point Clev. °C	Kin. visc. at 40 °C mm²/s	Kin. visc. at 100 °C mm²/s	VI	Pour-point °C	Main application area
Paper Machine Oils								
RENOLIN PA 150 ■	Range RENOLIN PA High-performance paper machine oils based on specially selected mineral base oils in combination with zinc-containing EP-additives which provide an excellent wear protection. RENOLIN PA oils fulfil and exceed the minimum requirements on CLP gear oils acc. to DIN 51517-3 and the requirements of paper machine oils for the wet end and dryer section acc. to Voith VN 108.	880	>230	150	15.0	100	-30	Recommended for the use in wet end and dryer sections in paper machines, also in gear boxes, bearings in central lubricating systems as well as in applications where a lubricating oil with high thermal stability and very good ageing stability is needed, demulsifying type. Mineral oil based
RENOLIN PA 220 ■ ■■		886	>230	220	19.3	99	-18	
RENOLIN NF PRESS 100 ■■■	Mineral oil based hydraulic oil based on hydrogenated mineral oils in combination with specially selected, zinc- and ash-free additive technology. Specially developed for the use in hydraulic presses in paper machines. Exceeds the requirements on hydraulic oils acc. to Voith VN 108.	867	260	100	11.5	103	-36	For the use in hydraulic presses in paper machines, e.g. Voith shoe presses. Hydrogenated base oils. Mineral oil based

Industrial Oils

Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Paper Machine Oils								
RENOLIN UNISYN CLP 150 PA 	Range RENOLIN UNISYN CLP PA Fully-synthetic, high performance paper machine oils based on polyalphaolefins. Excellent demulsibility (excellent water separation), high ageing stability, excellent wear protection and very good corrosion protection. High natural, shear stable viscosity index. For higher operating temperatures. Fulfil and surpass the minimum requirements of gear oils CLP-HC acc. to DIN 51517-3.	857	>200	150	19.8	152	-39	For the use in circulating lubrication of the wet end and dryer section in paper machines, also in gear boxes and central lubricating systems. Especially for higher operating temperatures. RENOLIN UNISYN CLP 220 PA Fulfils and surpasses the minimum requirements of the companies SKF, FAG and Voith VN 108 Based on PAO
RENOLIN UNISYN CLP 220 PA  		859	230	220	26.5	154	-36	
RENOLIN UNISYN CLP 320 PA 		864	>240	320	34.2	151	-32	
RENOLIN UNISYN CLP 460 PA 		866	>240	460	46.0	156	-27	
RENOLIN SynGear 220 HT  	Fully-synthetic high-temperature EP industrial gear oil and calender oil based on selected polyglycols (PAG). Excellent wear protection and ageing stability. DIN 51517-3: CLP-PG ISO 6743-6: CKC/CKD/CKT	1078	240	240	39.0	216	-36	For mechanically and thermally highly loaded wheel and worm gears / rolling and plain bearings. Especially for calenders in the paper and foil industry. Peak temperatures of 250 °C are allowed for a short time. Miscibility and compatibility properties with polyglycols of others manufacturers have to be checked. Based on PAG (Polyglycol)

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Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Turbine Oils								
RENOLIN ETERNA 32 	Range RENOLIN ETERNA Turbine oils of the latest generation for lubrication of gas and steam turbines and turbo compressors (also with gear boxes, FZG ≥ 10). Based on high-quality, hydrocracked base oils. High ageing resistance, excellent protection against sludge formation. No- / Low-Varnish turbine oils. Turbine oils acc. to DIN 51515-1: TDP and DIN 51515-2: TGP.	842	220	32	5.8	126	-15	For the lubrication of steam and gas turbines, generators, turbo compressors, pumps and transmissions. Furthermore used as lubricating and barrier oil in water-cooled generators. Surpass TDP and TGP according to DIN 51515 part 1 resp. part 2. AW/EP turbine oils: FZG≥10. Approved by many well-known OEM
RENOLIN ETERNA 46 		846	220	46	7.6	132	-15	
RENOLIN ETERNA 68 		851	230	68	9.5	120	-15	
RENOLIN ETERNA 32 SGV 	Range RENOLIN ETERNA SGV Turbine oils of the latest generation for gas and steam turbines as well as for turbo compressors without gear boxes. Exceed the requirements of DIN 51515-1: TD and DIN 51515-2: TG. EP/AW-free	838	220	32	5.8	126	-15	For the use in gas and steam turbines as well as in turbo compressors. Especially suitable for the compression of synthesis gases and ammonia. EP/AW-free, highest thermal stability. Approved by many well-known OEM
RENOLIN ETERNA 46 SGV 		846	220	46	7.6	132	-15	
RENOLIN ETERNA Clean 46 	Polar cleaning fluid for turbine oil circuits. Compatible with all common turbine oils. Free from detergents: No deterioration of the air and water separation behaviour and other negative impacts which occur with conventional cleaners. RENOLIN ETERNA Clean 46 contains a complete additive system. Therefore, a "weakening" of the turbine oil filling - arising by addition of other cleaners - will be prevented.	893	238	46	6.8	103	-42	With RENOLIN ETERNA Clean 46 old deposits, varnish and other oil degradation products can effectively be removed from the turbine oil system before an intended oil change. There will be no impairment of the new filling. Addition of approx. 5 – 10% to the existing turbine oil filling.

Industrial Oils



Product name	Description	Density at 15 °C kg/m³	Flash point Clev. °C	Kin. visc. at 40 °C mm²/s	Kin. visc. at 100 °C mm²/s	VI	Pour-point °C	Main application area
Oils for Transformers								
RENOLIN E 10 	High quality, inhibited insulating oil based on naphthenic base oils which can be used in transformers, switches, choking coils, condensers and converters. Excellent dielectric properties and high oxidation stability. Fulfills and surpasses the requirements for insulating oils according to IEC 60296 as well as RWE Power Specification class I.	874	142*	9.5	–	–	<-48	RENOLIN E 10 is used as insulating oil in transformers, switches, choking coils, condensers, converters and similar aggregates, also at low outdoor temperatures (e.g. in outdoor units).
RENOLIN ELTEC 	Non-inhibited insulating oil based on naphthenic base oils. Meets the requirements for insulating oils according to IEC 60296.	869	149*	10	–	–	-48	RENOLIN ELTEC is used as insulating oil in transformers, switches, choking coils, condensers, converters and similar aggregates, also at low outdoor temperatures (e.g. in outdoor units).
RENOLIN E 3  (4 x 5 L)	Inhibited switchgear oil based on naphthenic base oils. Especially for the use in outdoor units. Fulfills the requirements according to IEC 60296.	861	100*	3.2	–	–	<-70	RENOLIN E 3 is primarily used in power switches in outdoor units. Even at low ambient temperatures RENOLIN E 3 ensures an excellent flowability. Hence any additional electric heating is not necessary.

* Measured acc. to Pensky Martens (Flashpoint P.M.)

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Product name	Description	Density at 15 °C kg/m³	Flash point Clev. °C	Kin. visc. at 40 °C mm²/s	Kin. visc. at 100 °C mm²/s	VI	Pour-point °C	Main application area
Screw Compressor Oils								
RENOLIN SilverScrew 32 📦 🚰	Range RENOLIN SilverScrew High-tech air compressor fluids with high oxidative and thermal stability, which allows oil lifetimes of up to 6000h. Surpasses the requirements of DIN 51506:VDL. Corresponds to ISO 6743-3-DAJ. Corresponds to several OEM Requirements.	863	235	32	5.5	108	-38	Universal air compressor fluids for oil injected screw, vane and piston compressors.
RENOLIN SilverScrew 46 📦 🚰 🚚		868	244	46	6.9	105	-36	
RENOLIN SilverScrew 68 📦 🚰		870	255	68	9.0	106	-40	
RENOLIN GoldScrew 46 📦 🚰	Range RENOLIN GoldScrew Outstanding high-tech air compressor fluids with excellent oxidative and thermal stability, which allows oil lifetimes of up to 9000h. Surpasses the requirements of DIN 51506:VDL. Corresponds to ISO 6743-3-DAJ. Corresponds to several OEM Requirements.	855	260	46	7.6	131	-39	Universal air compressor fluids for oil injected screw, vane and piston compressors.
RENOLIN GoldScrew 68 📦 🚰		871	278	68	9.4	117	-33	

Industrial Oils

Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Screw Compressor Oils								
RENOLIN UNISYN OL 32 	Range RENOLIN UNISYN OL Fully-synthetic cooling oils for piston and screw compressors based on polyalphaolefins with excellent oxidation stability, outstanding wear protection, good demulsification and excellent viscosity-temperature behaviour. High viscosity index. Excellent air release. Allow service intervals to be extended. Lubricating oils VDL according to DIN 51506 and synthetic hydraulic oils according to DIN 51524-2/3: HLP/HVLP.	838	240	32	6.1	138	<-60	Fully-synthetic screw compressor oils based on PAO for extended oil change intervals even when subject to high thermal loads. Also suitable for highly loaded hydraulic systems. Excellent air release properties. Extended oil drain intervals. Based on PAO
RENOLIN UNISYN OL 46 		841	260	46	7.9	141	<-60	
RENOLIN UNISYN OL 68 		845	260	68	10.6	146	-54	
RENOLIN UNISYN OL 100 		848	260	100	14.4	149	-54	
RENOLIN UNISYN OL 150 		852	250	150	19.6	150	-47	
RENOLIN SynAir 46  (3 x 10 L)	High performance synthetic air compressor fluid, excellent biodegradability according to OECD 301C > 60%. Excellent thermal and oxidation stability. Guarantee a reliable corrosion protection and compatibility with elastomers	992	271	48	8.7	161	-50	For use in flooded or oil-injected screw air compressors. For applications at high temperatures to reduce oil-related residues, varnish and sludge. Extended oil drain intervals. Biodegradable acc. to OECD 301 C >60%. Based on PG + Ester

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Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Piston and Rotary Vane Compressor Oils								
RENOLIN 503 	Range RENOLIN 500 Special ageing-resistant lubricating oils offering minimal coking. Contain additives to improve corrosion protection and ageing stability. VDL lubricating oils according to DIN 51506. For compressor outlet temperatures up to +220 °C. 503: VDL 68 504: VDL 100 505: VDL 150	867	250	68	9.1	109	-18	Compressor oils with excellent anti-ageing behaviour and extremely low coking tendency. For air compressors with end temperatures up to 220 °C. Also for other thermally loaded circulation lubrication systems.
RENOLIN 504 		890	280	100	10.7	90	-21	
RENOLIN 505   		883	275	150	15.0	100	-15	
RENOLIN VAC 100 F 	Special vacuum pump lubricant based on highly refined mineral oils. Does not contain any additives. Extremely low evaporation losses. Suitable for high vacuum.	887	265	100	10.7	89	-12	Can be used in minimum final pressure range from 10 ⁻³ up to 10 ⁻⁴ mbar. Suitable for different compressor types for example piston and rotary compressors.
RENOLIN SE 100   	Fully-synthetic air compressor oil based on advanced synthetic ester technology. Further ISO VG classes on request	987	270	100	10.3	81	-42	High temperature stable ester oil for use in vane type and reciprocating compressors, even under severe conditions e.g. high temperatures. Especially suited for compressors where the use of a mineral oil can lead to coking and varnish. Based on Di-Ester
Gas Compressor Oils								
RENOLIN LPG 100  (on request)	Range RENOLIN LPG Synthetic gas compressor oils based on polyalkylene glycols (PAG). Suitable for process gases, refinery gases (petroleum gases) and other hydrocarbon-based gases (propane, propylene, butane, etc.) and their blends. Attention: For RENOLIN LPG 100 and LPG 185 a drying process has to be applied prior to using them as refrigeration oils.	1002	270	100	16.2	175	-39	RENOLIN LPG 100 and LPG 185 are characterized by a low solubility of hydrocarbon gases in the oil. Due to the use of special PAG base oils, the dilution of the lubricant in operation (drop in viscosity) is minimized. Thus, reliable wear protection and excellent lubricating properties are guaranteed. Selected additives provide additional security in terms of thermal-oxidative stability and wear protection of the lubricant under gas atmosphere. Based on polyglycol
RENOLIN LPG 185  (on request)		1012	280	185	29.0	197	-36	

Industrial Oils



Product name	Description	Density at 15 °C kg/m³	Flash point Clev. °C	Kin. visc. at 40 °C mm²/s	Kin. visc. at 100 °C mm²/s	VI	Pour-point °C	Main application area
Mineral Oil based Refrigeration Oils								
RENISO WF 2,3 A 	Range RENISO WF Special refrigeration oils for use with the refrigerant isobutane (R600a) – highly refined, low flocculation point with R600a, containing additives to improve wear protection and ageing stability. High energy efficiency. DIN 51503: KC, KE.	823	100	2.35	–	–	-42	RENISO WF refrigeration oils are recommended for the lubrication of hermetic refrigerator compressors with the refrigerant isobutane (R600a). Due to special additive systems, the RENISO WF refrigeration oils ensure the formation of a wear-protecting lubricating film at all operating temperatures. RENISO WF refrigeration oils are fully miscible with R600a and also with all other hydrocarbon refrigerants like R290. Based on special mineral oils
RENISO WF 5 A  (on request)		827	134	5.0	1.7	95	-45	
RENISO WF 7 A  (on request)		832	158	7.2	2.2	97	-42	
RENISO WF 10 A  (on request)		835	172	9.6	2.6	97	-42	
RENISO WF 15 A  (on request)		883	164	15	3.1	–	-51	

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Product name	Description	Density at 15 °C kg/m³	Flash point Clev. °C	Kin. visc. at 40 °C mm²/s	Kin. visc. at 100 °C mm²/s	VI	Pour-point °C	Main application area
Mineral Oil based Refrigeration Oils								
RENISO KM 32  (20 x 1 L)	Range RENISO K Highly refined, naphthenic mineral oils with high ageing stability, low pourpoint, excellent low-temperature behaviour and particularly good compatibility with the following refrigerants: ammonia (NH ₃), HCFCs (e.g. R22), hydrocarbons (e.g. propane R290, propylene R1270). DIN 51503: KAA, KC, KE.	881	202	32	4.9	63	-45	For all refrigeration systems using ammonia (NH ₃) or HCFC refrigerants. RENISO KES 100 is suitable for applications with high evaporation and condensation temperatures, such as air conditioning applications, heat pumps - especially recommended for turbo compressors. Based on naphthenic base oils
RENISO KS 46  (4 x 5 L, 20 L)		894	204	46	5.8	47	-42	
RENISO KC 68   		894	223	68	7.4	58	-39	
RENISO KES 100 		912	218	100	8.4	20	-33	
Fully Synthetic Refrigeration Oils based on Alkyl Benzenes								
RENISO SP 32 	Range RENISO S/SP Fully synthetic refrigeration oils based on chemically and thermally stable alkyl benzenes . RENISO SP 32, 46, 100 and 220 contain highly effective AW additives (not suitable for NH₃ applications). Excellent miscibility and excellent stability with HCFC refrigerants (e.g. R22). DIN 51503: KC, KE .	870	186	32	4.6	31	-51	Particularly good miscibility with HCFC refrigerants, such as R22. Suitable for very low evaporation temperatures down to -80 °C. RENISO SP products are also recommended for use with Drop-In refrigerants (R402A/B, R401A/B, etc.). Due to their excellent stability RENISO S/ SP – products are suitable for the lubrication of highly stressed refrigerant compressors. Based on alkyl benzenes
RENISO SP 46  (4 x 5 L)		869	190	46	5.3	26	-42	
RENISO SP 100 		869	208	95	8.0	11	-33	
RENISO S 3246 	RENISO S 3246 and RENISO S 68 do not contain AW additives and are suitable for use with HCFC refrigerants, hydrocarbons and NH ₃ . DIN 51503: KAA, KC, KE.	876	184	40	5.0	17	-42	RENISO S 3246 and RENISO S68 – suitable for R22, hydrocarbons as well as NH ₃ applications.
RENISO S 68  		871	192	68	6.6	-30	-36	

Industrial Oils

Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Fully Synthetic Refrigeration Oils based on Polyol Esters (POE)								
RENISO TRITON SEZ 22  (20 x 1 L)  (4 x 5 L)	Range RENISO TRITON SE/ SEZ Fully synthetic refrigeration oils based on synthetic polyol-esters - especially suitable for non-ozone depleting FC/HFC refrigerants, such as R134a, R404A, R507, R410A, R407C. Also suitable for hydrocarbon refrigerants. As polyolester oils strongly tend to absorb water (hygroscopic behaviour), the contact of these lubricants with air (atmospheric humidity) has to be limited to a minimum. DIN 51503: KD, KE. RENISO TRITON SE/SEZ is also suitable for the use with HFO and HFO/HFC refrigerants.	1003	248	20	4.4	133	-57	The RENISO TRITON SE/SEZ products are perfectly suited for all refrigeration circuits in which chlorine-free refrigerants (HFCs / FCs), e.g. R134a are used. RENISO TRITON SE/SEZ-refrigeration oils are recommended for hermetic, semi-hermetic and open piston compressors, as well as for screw and turbo compressors (depending on viscosity). Comprehensive tests have been performed on the use of RENISO TRITON SE/SEZ products with new refrigerants designed to replace R22, such as R422A/D and R417A. Based on polyolester
RENISO TRITON SEZ 32  (20 x 1 L)  (4 x 5 L)  (3 x 10 L) 		1004	250	32	6.1	141	-57	
RENISO TRITON SE 55  (20 x 1 L)  (4 x 5 L)  (3 x 10 L) 		1009	286	55	8.8	137	-48	
RENISO TRITON SEZ 68  (20 x 1 L)  (4 x 5 L)  (3 x 10 L) 		972	258	68	8.9	104	-39	
RENISO TRITON SEZ 80  (20 x 1 L)		992	251	80	10.6	118	-42	
RENISO TRITON SEZ 100  (4 x 5 L) 		970	266	100	11.4	100	-30	
RENISO TRITON SE 170  (20 x 1 L)  (4 x 5 L)  (3 x 10 L) 		972	260	173	17.1	106	-27	
RENISO TRITON SE 220  (4 x 5 L) 		976	294	220	19.0	98	-27	
RENISO TRITON SEZ 320		1015	278	309	33.3	148	-42	
RENISO TRITON CE 500  	Fully synthetic refrigeration oil based on saturated ester, suitable for ORC systems and HFO applications e.g. R1233zd. Also suitable for PFC and HCFC refrigerants. A fully synthetic refrigeration oil based on saturated, synthetic ester (POE) for high temperature heat pumps for the refrigerant R1234ze, R1336mzZ.	950	221	505	52.1	166	-33	

RENISO

Product name	Description	Density at 15 °C kg/m³	Flash point Clev. °C	Kin. visc. at 40 °C mm²/s	Kin. visc. at 100 °C mm²/s	VI	Pour-point °C	Main application area
Fully Synthetic Refrigeration Oils based on Synthetic Hydrocarbons (PAO)								
RENISO SYNTH 68  	Synthetic refrigeration oil based on polyalphaolefins (PAO) . For NH ₃ applications and hydrocarbon refrigerants. Also suitable for CO ₂ (not miscible with CO ₂). DIN 51503: KAA, KB, KE. NSF-H1-approved acceptable as a lubricant with incidental food contact, for use in and around food processing areas.	835	260	68	10.5	142	-57	RENISO SYNTH 68 has been developed especially for the lubrication of highly stressed NH ₃ compressors. Excellent stability with NH ₃ . Excellent low temperature flowability, suitable for evaporation temperatures below -50 °C. Very good thermal stability. Very good lubricity also in hydrocarbon (propane R290, propylene R1270, etc.) and CO ₂ applications (not miscible with CO ₂). Based on PAO
RENISO UltraCool 68 	Range RENISO UltraCool Refrigeration oil based on synthetic hydrocarbons . Particularly developed for ammonia applications. DIN 51503: KAA.	854	250	62	9.1	124	-48	RENISO UltraCool 68 combines high thermal stability (no varnish, no sludge) and low evaporation rate (low oil carry-over/ low oil loss) with good elastomer compatibility (CR, HNBR, NBR).
RENISO UltraCool 100 Packages on request		857	239	108	14.4	136	-46	
Fully Synthetic Refrigeration Oils based on Polyalkylene Glycols (PAG) for Hydrocarbon Refrigerants Applications								
RENISO LPG 68  (4 x 5 L)	Range RENISO LPG Synthetic refrigeration oil based on polyalkylene glycols (PAG) . For the application area of hydrocarbon refrigerants like propane (R290), propene (R1270). Synergetic acting additives improve the properties of the used base oils. Depending on the field of application and type of compressor, different viscosities are used. Controlled hydrocarbon solvency for less viscosity reduction. DIN 51503 - KE	990	226	68	12.7	189	-48	<u>RENISO LPG 68:</u> e.g. for piston compressors and screw compressors
RENISO LPG 100  (4 x 5 L)		992	228	100.0	18.1	201	-45	<u>RENISO LPG 100 and LPG 150:</u> e.g. for scroll compressors and screw compressors
RENISO LPG 150 Packages on request		994	238	149.9	26.2	211	-42	<u>RENISO LPG 185:</u> e.g. for screw compressors
RENISO LPG 185 Packages on request		1012	280	185	29.0	197	-36	Based on polyglycol
Fully Synthetic Refrigeration Oil based on Polyalkylene Glycols (PAG) for NH ₃ Applications								
RENISO PG 68  (4 x 5 L) 	Fully synthetic refrigeration oil based on polyalkylene glycols (PAG) , miscibility gap 10% oil / 90% NH ₃ : -35 °C. NH ₃ – partly miscible refrigeration oil, also suitable for hydrocarbon applications. DIN 51503: KAB, KE.	1044	250	70	14.0	210	-52	RENISO PG 68 is an ultra-dried, synthetic refrigeration oil based on PAG for NH ₃ systems which operate on the principle of direct expansion. Suitable for screw and reciprocating piston compressors. RENISO PG 68 is also recommended for the use with hydrocarbon refrigerants. Warning: PAG oils are not compatible / miscible with mineral oil. PAG oils are hygroscopic. Avoid any contamination with water. Please contact our FUCHS application engineers. Based on polyglycol

Industrial Oils

Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Fully Synthetic Refrigeration Oils based on Polyalkylene Glycols (PAG) for Car A/C Systems								
RENISO PAG 46  (24 x 250 ml)  (20 x 1 L)  (on request)	Range RENISO PAG Synthetic refrigeration oils based on special polyalkylene glycols (PAG) for automotive air conditioning units with R134a. Also suitable for hydrocarbon applications. DIN 51503: KAB, KD, KE.	992	240	55	10.6	187	-45	Refrigeration oils based on polyalkylene glycols for application with the refrigerant R134a used in car and truck air conditioning systems (A/C systems). RENISO PAG 100 is especially suitable for vane compressors. RENISO PAG 46 and PAG 100 can be used together with hydrocarbon refrigerant and ammonia. Based on polyglycol
RENISO PAG 100  (24 x 250 ml)  (20 x 1 L)  (on request)		996	240	120	21.0	202	-45	
RENISO PAG 1234  (24 x 250 ml)	Synthetic refrigeration oil on the basis of double end-capped polyalkylene glycols (PAG) . For vehicle A/C systems with R1234yf. Also suitable for R134a. DIN 51503: KD.	993	224	44	9.8	218	-45	RENISO PAG 1234 has been newly developed for car air conditioning systems with R1234yf. The product combines both good miscibility properties and high thermo-chemical stability in contact with the refrigerant. Basic fluid and additivation of RENISO PAG 1234 guarantee best lubrication properties and wear protection. Based on polyglycol
Fully Synthetic Refrigeration Oil based on Polyalkylene Glycols (PAG) for Heat Pump Applications								
RENISO PAG 460 Packages on request	Special fully synthetic refrigeration oil based on special polyalkylene glycol (PAG) .	1001	252	460	72.4	238	-33	For the use in high temperature heat pump systems with hydrocarbon refrigerants, e.g. pentane (R601), iso-pentane (R601a).
RENISO PAG 220 C "Ultra dry" Packages on request	Synthetic refrigeration oil based on special, double-end capped PAGs for trans-critical CO ₂ applications (industrial and commercial applications). DIN 51503: KB, KD, KE.	1077	250	226	39.1	226	-39	Refrigeration oil based on polyalkylene glycols (PAGs). For HFC refrigerants like R134a. Especially suitable for screw compressors in heat pump applications for industrial and commercial use. Also suitable for hydrocarbon and CO ₂ applications (CO ₂ non-miscible oil). Based on polyglycol
Fully Synthetic Refrigeration Oil based on POE for Car A/C Systems in Electric and Hybrid Cars								
RENISO TRITON SEZ 75 AC Packages on request	Synthetic refrigeration oil for electrically driven, hermetic compressors in R1234yf car a/c systems. Also suitable for R134a, based on special polyolester . DIN 51503: KD	992	246	75	9.9	113	-42	RENISO TRITON SEZ 75 AC was developed to lubricate electric compressors in car a/c systems. Due to its high electrical resistivity RENISO TRITON SEZ 75 AC is the ideal lubricant to secure the insulation of the electrical compressor parts at any time. Beyond that RENISO TRITON SEZ 75 AC guarantees reliable lubrication, excellent wear protection and safe oil transport. Based on polyolester

RENISO

Product name	Description	Density at 15 °C kg/m³	Flash point Clev. °C	Kin. visc. at 40 °C mm²/s	Kin. visc. at 100 °C mm²/s	VI	Pour-point °C	Main application area
Fully Synthetic Refrigeration Oils based on Polyalkylene Glycols (PAG) for CO ₂ Applications								
RENISO ACC 68  (4 x 5 L)	Synthetic refrigeration oil based on special, double end-capped PAGs for transcritical CO ₂ applications (industrial and commercial applications). DIN 51503: KB.	992	>220	68	14.1	215	-42	Refrigeration oil based on thermally very stable, double end-capped PAGs for industrial transcritical CO ₂ applications (particularly for air conditioning and heat pump applications). Contains special additives to improve wear protection and ageing stability.
Based on polyglycol								
RENISO ACC HV   (24 x 250 ml)	Synthetic refrigeration oil based on special, double end-capped PAGs for transcritical CO ₂ application. Especially developed for automotive A/C sytems. DIN 51503: KB.	991	229	68	14.0	216	-45	RENISO ACC HV was developed in close collaboration with leading compressor manufacturers and OEMs specific for CO ₂ air conditioning systems in vehicles. RENISO ACC HV is based on chemical and thermal extremely stable double end-capped PAG fluids with efficient additivation – especially with regard to wear protection.
Based on polyglycol								
Fully Synthetic Refrigeration Oils based on Polyol Esters (POE) for CO ₂ Applications								
RENISO C 55 E   (4 x 5 L)  (on request)	Range RENISO C Synthetic refrigeration oils based on special polyol-esters with anti-wear additives for use with the refrigerant CO ₂ (subcritical and transcritical applications). Also suitable for HFC / FC refrigerants. DIN 51503: KB, KD.	1009	286	55	8.8	137	-48	The RENISO C products were especially developed for use in applications with the refrigerant CO ₂ . Application fields: supermarket refrigeration equipment (subcritical deep-freeze stage of cascade systems and transcritical applications), ship cooling, as well as nearly all fields of industrial and commercial refrigeration.
RENISO C 85 E   (4 x 5 L)  (3 x 10 L) 		993	246	80	10.6	118	-42	
RENISO C 170 E  (3 x 10 L)  (on request)		976	286	172	18.0	116	-33	
Based on polyolester								

Industrial Oils



Product name	Description	Density at 15 °C kg/m³	Flash point Clev. °C	Kin. visc. at 40 °C mm²/s	Kin. visc. at 100 °C mm²/s	VI	Pour-point °C	Main application area
Environmentally Friendly Industrial and Hydraulic Oils								
PLANTOHYD 15 S* ☞	Range PLANTOHYD S Synthetic ester oils with additives to increase ageing stability. Rapidly biodegradable according to OECD 301 B > 60%. High wear protection (FZG stage 12). Surpass the requirements acc. to ISO 15380: "HEES". HVLP acc. to DIN 51524-3 (except TOST test). Awarded the EU Ecolabel (EEL).	893	200	15	4.1	191	-33	Universally useable. Especially recommended for hydraulic systems in sensitive areas. Oil sump temperatures from -30 °C to +90 °C. The change-over guidelines acc. to ISO 15380 must be observed.
PLANTOHYD 22 S* ☞ ☞ ☞		901	200	22	5.4	198	-33	
PLANTOHYD 32 S* ☞ ☞ ☞		910	206	32	7.1	194	-36	
PLANTOHYD 46 S* ☞ ☞ ☞ ☞		920	300	46	9.2	187	-45	
PLANTOHYD 68 S* ☞ ☞		924	300	68	12.3	181	-36	

PLANTO

Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Environmentally Friendly Industrial and Hydraulic Oils								
PLANTOSYN 32 HVI* 	Range PLANTOSYN HVI Environmentally friendly hydraulic and circulating oils based on synthetic saturated esters.	915	220	32	6.2	148	-46	Suitable for all mobile and stationary hydraulic systems for which the use of a rapidly biodegradable HEES hydraulic oil according to ISO 15380 is recommended (e.g. in agriculture and forestry). Can be used where unsaturated, synthetic esters have failed. Extension of oil changing intervals possible. Oil sump temperature: -30°C to 100 °C or higher. The change-over guidelines acc. to ISO 15380 must be observed. Approvals: MANNESMANN REXROTH Sauer SUNDSTRAND
PLANTOSYN 46 HVI* 	Rapidly biodegradable acc. to OECD 301 B > 60%. High wear protection, good seal and non-ferrous metal compatibility, excellent oxidation stability.	913	280	46	8.2	150	-36	
PLANTOSYN 68 HVI* 	Fulfills the requirements of HEES hydraulic oils according to ISO 15380 and HVLP according to DIN 51524-3 (except TOST test). Awarded the EU Ecolabel (EEL).	916	280	68	10.6	143	-30	
PLANTOSYN 3268 ECO*    	PLANTOSYN 3268 ECO is a rapidly biodegradable hydraulic fluid based on synthetic esters. PLANTOSYN 3268 ECO was especially developed for use in high risk areas / environmental high risk areas. Fulfills the minimum requirements on hydraulic oils HEES acc. to ISO 15380 and HVLP acc. to DIN 51524-3 (except TOST test) Awarded the EU Ecolabel (EEL)	920	300	47	9.5	191	-45	PLANTOSYN 3268 ECO is recommended for hydraulic systems in environmental high risk areas. Change-over guidelines acc. to ISO 15380 must be observed.
PLANTOSYN 3268*  	Environmentally friendly, high temperature-stable HVI multigrade hydraulic oil based on fully saturated, synthetic ester (HEES), surpasses DIN ISO 15380, > 60% rapidly biodegradable acc. to OECD 301 B. Awarded the EU Ecolabel (EEL).	913	290	46	8.2	154	-36	FUCHS recommendations: Bosch Rexroth AG, CAT BF-1, KRAMER ALLRAD, PALFINGER, SAUER DANFOS, TIMBERJACK, VALMET / KOMATSU FOREST, PONSSE Approvals: FENDT, O&K
PLANTOLUBE POLAR 15 S 	Range PLANTOLUBE POLAR S PLANTOLUBE POLAR S oils are environmentally friendly, rapidly biodegradable fluids, with an extremely low pourpoint. Thanks to their very high VI they can be used in a wide temperature range. PLANTOLUBE POLAR S oils offer outstanding protection against corrosion and wear. Highly ageing resistant. Surpass the requirements of DIN 51524-3: HVLP (except TOST test) ISO 15380: HEES.	899	156	15	4.1	199	<-48	Gears, bearings, actuators used at extremely low temperatures (e.g. polar regions). Hydraulic systems operated under low temperatures can also be run with oils from the POLAR S range. The changeover guidelines according to ISO 15380 must be observed.
PLANTOLUBE POLAR 22 S 		908	166	22	5.7	200	<-51	



Industrial Oils

Product name	Description	Densi-ty at 15 °C kg/m³	Flash point Clev. °C	Kin. visc. at 40 °C mm²/s	Kin. visc. at 100 °C mm²/s	VI	Pour-point °C	Main application area
Environmentally Friendly Synthetic Circulating and Gear Oils								
PLANTOGEAR 100 HVI* 	Range PLANTOGEAR HVI Environmentally friendly circulation and EP gear oils based on special saturated synthetic ester with high ageing stability, good load carrying capacity and excellent wear protection. The products PLANTOGEAR 100 HVI and 150 HVI meet and exceed the requirements according to DIN 51517-3: CLP -E AGMA 9005 / E02: EP Awarded the EU Ecolabel (EEL).	927	>270	100	13.7	138	-33	Universal CLP gear oils. The products are used in spur, bevel, planetary and worm gears, specially in environmentally sensitive areas, as well as for lubrication of drives in water protection areas, where by oil leaks groundwater and surface water could be endangered. The changeover guidelines according to ISO 15380 must be observed.
PLANTOGEAR 150 HVI* 		928	>270	150	19.1	145	-30	
PLANTOGEAR 220 S* 	Range PLANTOGEAR S Rapidly biodegradable high-performance gear oils based on special, saturated esters. Extremely high thermal and ageing stability, high viscosity index, good viscosity-temperature behaviour. For low-temperature applications. Excellent self- cleaning power due to polar ester structures, reduced friction, excellent wear protection. The PLANTOGEAR S series surpass the requirements of industrial gear oils DIN 51517-3: CLP-E ISO 6743-6 and ISO 12925-1: CKC, CKD, CKE. AGMA 9005/E02: EP Awarded the EU Ecolabel (EEL)	938	280	220	26.2	152	-30	For highly stressed spur, bevel, planetary and worm gears - above all in areas where leakages could present a hazard to soil and to ground or surface water. For high and low application temperatures. High, shearstable viscosity index. Can be used as a self-cleaning gear oil (flushing oil).
PLANTOGEAR 320 S* 		943	280	320	35.1	155	-30	
PLANTOGEAR 460 S* 		951	280	460	48.0	163	-30	
PLANTOGEAR 680 S* 		958	280	680	66.0	170	-30	
Environmentally Friendly Slideway Oils / Lubrication Oils								
PLANTOLUBE CGLP 68 S 	Slideway oil based on synthetic esters with very good biodegradability. Prevents stick-slip. Load carrying capacity and wear protection are outstanding.	916	280	68	12.1	170	-33	PLANTOLUBE CGLP 68 S is designed for the use in combination with PLANTOCOOL and PLANTOCUT.
PLANTO TAC 68*  (4 x 5 L) 	Biodegradable high-performance chain saw oil based on rapeseed oils. Excellent lubrication behaviour, good ageing resistance.	924	>270	55	12.0	216	-39	For the professional use in chain saws. Recommendations: Husqvarna, Stihl, Solo, Dolmar
PLANTOTAC HV 220 N 	High-quality adhesive oil based on vegetable oil, environmentally friendly and rapidly biodegradable. PLANTOTAC HV 220 N offers very good VT behaviour, adhesive properties and excellent wear protection. FZG A/8.3/90 failure load stage > 12. 220 N: CG 220	955	>250	249	31.5	169	-36	Predominantly for so-called loss lubrication, such as on non-oil-tight bearings, saw frames, guide ways, joints, bolts, etc.
PLANTOTAC HV 100 S 	PLANTOTAC HV-N oil is based on ageing-stable synthetic esters. 100 S: CG 100	924	300	100	17.5	193	-36	Predominantly for so-called loss lubrication, such as on non-oil-tight bearings, saw frames, guide ways, joints, bolts, etc. Especially for higher operating temperatures.

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Product name	Description	Density at 15 °C kg/m³	Flash point Clev. °C	Kin. visc. at 40 °C mm²/s	Kin. visc. at 100 °C mm²/s	VI	Pour-point °C	Main application area
Cylinder Oils								
RENOLIN CH 500 	Range RENOLIN CH High-quality, mineral oil-based cylinder oils. Good thermal stability and low coking. Exceed the requirements of Z lubricating oils according to DIN 51510.	929	318	965	44.0	84	-6	For steam temperatures up to 340 °C in stationary equipments, for steam machines up to 325 °C.
RENOLIN CH 700 		927	>290	2020	81.0	98	-15	For highest steam temperatures up to 380 °C, intermittent working steam machines above 325 °C. Specially for old steam locomotives.
Tacky Oil								
RENOTAC 345 	High-quality tacky and lubricating oil based on mineral oils with lubricity improvers and anti-wear agents. Good EP and adhesive performance (tackiness). Lubricant for all total-loss applications (plain bearings, slideways, guides etc.). 345: CG(L) 220	890	250	220	19.7	100	-15	Lubricant for point of loss lubrication, for example slideways, guide ways, slide bearings at wood, packaging and textile machines.



Industrial Oils

Product name	Description	Density at 15 °C kg/m³	Flash point Clev. °C	Kin. visc. at 40 °C mm²/s	Kin. visc. at 100 °C mm²/s	VI	Pour-point °C	Main application area
Heat Transfer Oils								
RENOLIN THERM 250 	Range RENOLIN THERM Heat transfer oils based on mineral oils with high thermal stability. High heat transfer coefficients.	892	154	10.2	2.4	–	<-42	Application range: -20 °C to 250 °C (film temperature) Based on mineral oils
RENOLIN THERM 320 		870	225	43.7	6.5	–	-12	Application range: -10 °C to 320 °C (film temperature) Based on mineral oils
RENOLIN THERM 330 S 	Synthetic heat transfer oil with very high thermal stability. Mixture of low volatile alkylbenzenes.	864	>190	21	4.1	–	-60	Application range: until 320 °C (film temperature) Based on synthetic oils
RENOLIN THERM 380 S 	Synthetic heat transfer oil. Extremely high thermal stability. Minimum coking tendency.	1043**	200*	16.5	3.1	–	-34	Application range: until 380 °C (film temperature) Based on synthetic oils
Special Sealing Oils for Gasometers								
RENOLIN GAS 68 	Range RENOLIN GAS RENOLIN GAS are special sealing oils for gasometers. They are based on carefully chosen base oils and contain efficient additives to protect the oils against oxidation and to guarantee a reliable corrosion protection. RENOLIN GAS oils show high compatibility with various gases and contain efficient anti stick-slip components.	898	232	68	7.9	78	-36	RENOLIN GAS oils can be used in various applications. They have a high pumpability and good cold flow behaviour (low pourpoints). Moreover they display very good anti stick-slip characteristics and show very good demulsibility. Especially developed for the use as sealing oils in gasometers.
RENOLIN GAS 70  (on request)		867	245	68	9.1	113	-39	
RENOLIN GAS 150  (on request)		880	266	150	15.4	104	-33	
Pneumatic Oils								
RENOLIN SDL 1808  (4 x 5 L) 	Fully synthetic pneumatic oil with high wear and corrosion protection.	1116	140	11	2.2	–	-51	Also for ambient temperatures below -3 °C; prevents freezing of valves and other components contaminated by moisture. Based on polyglycol
KOMPRANOL GRÜN  (20 x 0.25 L)  (10 x 1 L)  (4 x 5 L) 	Eco-friendly lubricating and preservation fluid for compressed air tools	1083	112	20	2.3	–	-75	For compressed air tools of all types, e.g. pneumatic hammers and chisels, tunnelling machines, pneumatic pile drivers in all industries. Absorbs water condensate without loss of the lubricity.
KOMPRANOL PF 84  (20 x 0.25 L)  (10 x 1 L)  (4 x 5 L) 	Synthetic, eco-friendly oil for compressed air tools.	1083	111	20	2.4	–	-75	Mixture of fully-synthetic oil with additives for protection against corrosion and wear. For lubrication of compressed air tools such as pneumatic hammers and chisels, displacement mole drives, and pneumatic tools in all branches of industries, especially in the construction industry. Picks up condensate without loss of lubricating quality.

* measured according to Pensky-Martens (Flashpoint P.M.)

** Density at 20 °C

RENOLIN

Product name	Description	Density at 15 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Test Oils								
Referenzflüssigkeit IRM 901 	Reference oils for laboratories	882	243	213	19.1	–	-12	Reference oils for laboratory tests, mainly used for elastomer compatibility tests. Successor products for old ASTM test oils.
Referenzflüssigkeit IRM 902  (1 x 5 L)		935	243	441	18.8	–	–	
Referenzflüssigkeit IRM 903  (1 x 5 L)		920	171	29.5	4.3	–	-33	
RENOLIN FST 101 	Leakage test oil concentrate	990	>100	>40	–	–	-33	Fluorescent leak detection concentrate for lubricating and hydraulic oils.
PRÜFFARBSTOFF blau  (14 x 1 L)	Leakage test oil concentrate	990	–	–	–	–	–	Blue dye for leak detection in hydraulic and lubricating oils.
RENOLIN ANTI-STICK-SLIP  (4 x 5 L) 	Universal anti-stick-slip additive	944	270	103	–	–	> -20	RENOLIN Anti-Stick-Slip has been used successfully in hydraulic systems of elevators, forklifts, agricultural machinery, platform lifts, hydraulic vibration dampers, etc. Recommended concentration: 2%
Water-Glycol Coolant Fluid								
RENOLIN MPG 5 MIX 30 IDM    	Premixed, ready-to-use water-glycol coolant-fluid with a concentration of 30% mono propylene glycol. The product is colored blue nad is fluorescing. To ensure long lifetime, de-ionized water has been used to dilute the product. Freezing Point [°C]: -11 °C pH value [-]: 8.4 Reserve alkality [0,5N HCl / 50g]: 5.0	1028	–	–	–	–	–	Specially developed for the use as special spindle coolant in CNC machinery. The product is recommended for all circulating systems, either for heating or cooling purposes. It also provides good frost protection, good aging stability and good corrosion protection against iron and non-ferrous metals.
RENOLIN MPG 5 CONC IDM    	Cooling fluid concentrate based on mono propylene glycol and additives. The concentrate has excellent corrosion protection properties, is colored blue and is fluorescing. Easy mixability, good corrosion protection and long lifetime. Freezing Point with 40 vol% [°C]: -17 Freezing Point with 50 vol% [°C]: -26 pH value [-]: 7.8 Reserve alkality [0.5 N HCL / 50 g]: 8.8	1044	>110	16.7	–	–	–	The RENOLIN MPG 5 CONC IDM is recommended for industrial circulation systems as coolant, heating or frost protection. The concentrate has to be mixed with water acc. to the manufacturer to be ready-to-use. A minimum concentration of 33% of RENOLIN MPG 5 CONC IDM has to be ensured.

FUCHS Special Applications Industrial Oils

Depending on the area of application, highly specific requirements are placed on industrial oils. In addition to an excellent technical performance under extreme conditions, such as extreme temperatures or harsh environmental conditions, a high degree of biological compatibility is also frequently required for use in environmentally sensitive areas. Such industrial oils are therefore marked with FUCHS Special Applications and are among the lubricants for highly specialized applications.

Product name	Description	Density at 20 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Chain Fluids for Temperatures up to +150 °C								
RENOLIN CHAINLUBE 3080 📦 (4 x 5 L) 🚰 (205 L)	Mineral oil-based chain lubricant	920	141	100	8.8	37	-25	For chain drives operating at high humidity, e.g. in docks, escalators, drive and conveying chains. Operating temperature -25 to +80 °C Base oil: mineral oil
RENOLIN CHAINLUBE 2001 📦 (4 x 5 L) 🚰 🚰	Semi-synthetic chain lubricant	910	>230	215	21.1	116	-19	For conveyor and drive chains operating at elevated temperatures e.g. in the chemical industry, mechanical engineering and wood processing. Operating temperature -15 to +150 °C
RENOLIN CHAINLUBE 2001 SPRAY 🚰 (12 x 400 ml)		795	–	215	21.1	116	-19	Base oil: semi-synthetic
RENOLIN CHAINLUBE MO2080 🚰 🚰	Semi-synthetic lubricant with solid lubricants	905	>220	408	26.2	86	-15	RENOLIN CHAINLUBE MO2080 is used for highly-loaded chains in the conveyor and drive technology, e.g. in the chemical industry, in mechanical engineering, wood and plastics processing, packaging equipment, etc. RENOLIN CHAINLUBE MO2080 is well-proven for the lubrication of press guides in the forging industry. Operating temperature -10 to +120 °C Base oil: semi-synthetic

Density Specification at 20 °C

🚰 = Spray Can, 📦 = 20 L (Canister), 🚰 = 205 L (Drum), 🚰 = 1000 L (IBC), 🚚 = Tank Truck

RENOLIN

Product name	Description	Densi- ty at 20 °C kg/m³	Flash point Clev. °C	Kin. visc. at 40 °C mm²/s	Kin. visc. at 100 °C mm²/s	VI	Pour- point °C	Main application area
Chain Fluids for Temperatures up to +150 °C								
RENOLIN CHAINLUBE G1000  (4 x 5 L) 	Chain lubricant with graphite	900	158	40	7.7	165	-38	For chain drives of all types in the normal temperature range, e.g. in the automotive industry, chemical industry, mechanical engineering, for transport or conveyor chains, forklift chains and external wire rope lubrication.
RENOLIN CHAINLUBE G1000 SPRAY  (12 x 400 ml)		730	–	40	7.7	165	-38	Operating temperature -30 to +100 °C Base oil: mineral oil
Chain Fluids for extreme Temperatures from +150 °C (up to 300 °C)								
RENOLIN CHAINLUBE HT MO5301  (4 x 5 L) 	Chain lubricant with MoS ₂	920	300	160	18	124	-19	For conveyor and drive chains as well as plain and roller bearings and sliding surfaces parti- cularly for high-temperature operation in furnaces and dryers etc., e.g. in the chemical and automotive industry, in mechanical engineering, wood and plastics processing, packaging systems and in glass industry. Excellent dry running properties. Operating temperature -10 to +220 °C Base oil: fully synthetic
RENOLIN CHAINLUBE HT 5000  (4 x 5 L) 	Fully synthetic high-temperature chain lubricant with low base oil viscosity	970	>260	100	12	110	-30	For conveyor and drive chains, stenter frames, conveying equipment, dryers in the chemical, mechanical engineering and textile industries. Is characterised by very low evaporation losses and does not form any lacquer-like deposits even at increased ope- rating temperatures. Good creep ability due to low base oil viscosity. Operating temperature -20 to +240 °C Base oil: fully synthetic
RENOLIN CHAINLUBE HT 5001  (4 x 5 L) 	Fully synthetic high-temperature chain lubricant with good paint compati- bility	970	>260	180	16	91	-20	For high-temperature applications for con- veyor and drive chains, bearings and sliding surfaces in the chemical, textile technology and raw materials industries. Is characterised by very low evaporation losses and does not form any lacquer-like deposits even at increased operating temperatures. Excellent for lubricating conveyor chains in painting lines in the automotive industry. Operating temperature -15 to +240 °C Base oil: fully synthetic
RENOLIN CHAINLUBE HT 5001 SPRAY  (12 x 400 ml)		820	–	180	16	91	-20	
RENOLIN CHAINLUBE HT 5006  (4 x 5 L) 	Fully synthetic high-temperature chain lubricant with high base oil viscosity	940	245	3000	136	132	-7	“Chain honey” for largesized conveyor and drive chains, sliding surfaces, cams, bearings and disc cams e.g. in the chemical industry, in mechanical engineering, steel hydraulics and in printing machines. Is characterised by very low evaporation losses and does not form any lacquer-like deposits even at increased operating temperatures. Minimi- zed fling-off behaviour due to high base oil viscosity. Operating temperature 0 to +240 °C Base oil: fully synthetic
RENOLIN CHAINLUBE HT 5006 SPRAY  (12 x 400 ml)		780	–	3000	136	132	-7	

FUCHS Special Applications Industrial Oils

Product name	Description	Density at 20 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Chain Fluids for extreme Temperatures from +150 °C (up to 300 °C)								
RENOLIN CHAINLUBE HT 5020 	Fully synthetic high-temperature chain lubricant	970	>250	220	20	107	-42	RENOLIN CHAINLUBE HT 5020 is suitable for high-temperature applications of all types of conveyor and drive chains. RENOLIN CHAINLUBE HT 5020 was especially developed for the lubrication of chains in curing ovens in the production of gypsum board dryers. Operating temperature -20 to +250 °C Base oil: fully synthetic
RENOLIN CHAINLUBE HT 6020  (4 x 5 L) 	Chain fluid for extremely high temperatures	980	>280	130	14	105	-39	For minimum quantity lubrication of chains in tempering furnaces for insulation production as well as all types of steel link chains. Is characterised by very low evaporation losses and does not form any lacquerlike deposits even at increased operating temperatures. The high flash point offers maximum safety at high temperatures. Operating temperature -20 to +260 °C Base oil: fully synthetic
RENOLIN CHAINLUBE HT 7001 	High performance high temperature chain lubricant	960	>280	233	26	140	-33	RENOLIN CHAINLUBE HT 7001 maximises the lubrication performance in high temperature chain applications. Exceptionally high thermal stability and very good wear protection properties can significantly increase the running time of components, save energy and reduce the number of oven fires - while at the same time reducing lubricant consumption. Excellent for the lubrication of chains in hardening furnaces in insulation production. Operating temperature -20 to +300 °C Base oil: fully synthetic
Environmentally Friendly Chain Fluids								
RENOLIN CHAINLUBE ECO20  (4 x 5 L) 	Biodegradable lubricating fluid	950	>280	95	14	150	-60	For all types of chains and oil-lubricated machine elements, particularly in environmentally sensitive areas characterised by its very good corrosion protection and high water resistance. Operating temperature -40 to +160 °C Base oil: fully synthetic
RENOLIN CHAINLUBE ECO W10  (4 x 5 L) 	Biodegradable synthetic oil with white solid lubricants	890	>180	18	—	—	-60	For lubrication of levers, joints, chains and other mechanisms, particularly for oscillating movements. Wherever rapid and selfactivating penetration of the lubricant is required. Operating temperature -20 to +110 °C Base oil: fully synthetic
RENOLIN CHAINLUBE ECO W10 SPRAY  (12 x 400 ml)		860	12	18	—	—	-60	

RENOLIN, *TRAMLUB*



Product name	Description	Density at 20 °C kg/m³	Flash point Clev. °C	Kin. visc. at 40 °C mm²/s	Kin. visc. at 100 °C mm²/s	VI	Pour-point °C	Main application area
Lubricants for Rail Vehicles								
TRAMLUB S 3 ☞ (10 L) ☞ (60 L, 220 L)	Eco-friendly rail and wheel flange lubricating fluid	860	120	165	17	110	-42	For eco-friendly lubrication of rails and wheel flanges of railway vehicles as well as for lubrication of switches. TRAMLUB S 3 is also very suitable for eco-friendly lubrication of chains. Operating temperature -25 to +100 °C Base oil: fully synthetic
TRAMLUB S 4 ☞ (10 L) ☞ (220 L)		840	155	37	6	106	-55	For eco-friendly lubrication of rails and wheel flanges of railway vehicles. Especially suitable for low temperatures. Operating temperature -30 to +100 °C Base oil: fully synthetic
TRAMLUB S 5 ☞ (10 L) ☞		920	300	68	12	175	-30	For eco-friendly lubrication of rails and wheel flanges of railway vehicles as well as for reliable lubrication of sliding surfaces of switch plates, biodegradable. Operating temperature -30 to +100 °C Base oil: fully synthetic

Density Specification at 20 °C

☞ = Spray Can, ☞ = 20 L (Canister), ☞ = 205 L (Drum), ☞ = 1000 L (IBC), ☞ = Tank Truck

FUCHS Special Applications Industrial Oils



Product name	Description	Density at 20 °C kg/m³	Flash point Clev. °C	Kin. visc. at 40 °C mm²/s	Kin. visc. at 100 °C mm²/s	VI	Pour-point °C	Main application area
Lubricants for Noise Reduction								
CARBAFLO KSP 105 Packages on request	Perfluorinated high-performance lubricating fluid	1700	–	148	18	135	-42	Reduces mechanical noise due to stick-slip effects in the passenger compartment of cars, e.g. leather creaking, squeaking of the instrument panel and interior trim. Operating temperature -40 to +200 °C Base oil: fully synthetic
CARBAFLO KSP 105 SPRAY ☼ (20 x 100 ml)		1700	–	160	18	135	-42	
CARBAFLO XTR 5F Packages on request	Perfluorinated high-performance lubricating fluid including UV-tracer	1900	–	174	34	242	-63	After the evaporation of the carrier liquid a thin, anti-squeakeffective film remains which can be detected on any surface by a UV lamp. Used to avoid squeaking noise in the vehicle interior and for sealing systems. Operating temperature -40 to +220 °C Base oil: fully synthetic
CARBAFLO XTR 5F 80 Packages on request	Perfluorinated high-performance lubricating fluid including UV-tracer	1900	–	174	34	242	-63	After the evaporation of the carrier liquid a thin, anti-squeakeffective film remains which can be detected on any surface by a UV lamp. Used to avoid squeaking noise in the vehicle interior and for sealing systems. The CARBAFLO XTR 5F 80 version offers increased creeping ability when the product is applied. Operating temperature -54 to +220 °C Base oil: fully synthetic

Density Specification at 20 °C

☼ = Spray Can, 📦 = 20 L (Canister), 🥁 = 205 L (Drum), 🏠 = 1000 L (IBC), 🚚 = Tank Truck

CARBAFLO, CHEMPLEX

Product name	Description	Density at 20 °C kg/m ³	Flash point Clev. °C	Kin. visc. at 40 °C mm ² /s	Kin. visc. at 100 °C mm ² /s	VI	Pour-point °C	Main application area
Silicone Lubricant / Si-Fluids								
CHEMPLEX SI SPRAY ☞ (12 x 400 ml)	Silicone lubricant	977	–	730	302	476	-50	CHEMPLEX SI SPRAY combines the excellent properties of silicone lubricants with the easy application from a spray can. Water-repellent, not greasy, does not attack plastics and rubber elastomers. For lubrication of telescopic platforms of road finishers, door sealings of vehicles, zippers, snaps fasteners, hinges, precision mechanics. Only available as spray! Operating temperature -40 to +250 °C Base oil: fully synthetic
Chemically Resistant Lubricating Fluid / Fluorinated Fluids								
ONTROPEEN 40 Packages on request	Chemically resistant lubricating fluid based on perfluorinated polyether	1890	–	80	10.1	108	-35	For lubrication of special machine elements in the chemical industry at high and low temperatures. It is recommended as a pressure transfer fluid for process control devices in the chemical industry. Operating temperature -30 to +260 °C Base oil: fully synthetic
Solid Lubricant Additives / MoS₂								
MOLYPHIDE 10 ☞ ☞	MoS ₂ suspensions	920	210	30	5.2	103	-15	MOLYPHIDE 10% and MOLYPHIDE 20% are thermally stable colloidal suspensions of highpurity molybdenum disulphide in mineral oil. The products are used as MoS ₂ additive concentrate for engine and machine oils. Base oil: mineral oil
MOLYPHIDE 20 ☞ ☞		940	>235	30	5.2	103	-12	

LUBRICATING GREASES / PASTES

Greases are viscous, tough to solid lubricants. By selecting suitable oils, thickeners and additives, the properties of the lubricating greases can be optimally adjusted for the most diverse applications with the corresponding experience and know-how. For example, there are greases for high or very low temperatures, for applications in vacuum, particularly water-resistant and weather-proof, particularly pressure-resistant or capable of creep, rapidly biodegradable or particularly adhesive greases.

Pastes are consistent lubricants, which contain special solid lubricants to optimise their lubrication performance. It is precisely in the marginal areas of grease lubrication where grease pastes exhibit their exceptional efficiency, e.g. with high loads or rapidly changing directions of movement. They reduce friction and protect against wear.

With the lubricating greases and pastes from FUCHS, you have one of the largest grease ranges on the market - for almost all applications and requirements and for the best possible technical and economical solutions.



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FUCHS Special Applications

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Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubri- cants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Tem- pera- ture range [°C]	Approvals, recommen- dations	Main application area
Multipurpose / Longlife Greases								
RENOLIT CA-LZ (Spray can: RENOLIT CA-LZ SPRAY)	KP2K-30 ISO-L- XC(F)CHB 2	Calcium Mineral oil	–	2	700	-30 / +120	–	Strongly adhesive, protects from wear even under extreme conditions, very resistant to water wash-out from metallic surfaces, long-term lubrication of passenger cars and commercial vehicles, construction industry, industrial and agricultural machines.
 0.4 kg (Cartridge), 0.5 kg (Cartridge), 18 kg (Bucket), 50 kg (Hobbock), 180 kg (Drum)								
RENOLIT LX 1	–	Li-X Mineral oil	–	1	160	-30 / +160	–	Roller bearings, electric motor bearings, coupling bearings in the automotive sector, construction machines, forging presses.
 0.4 kg (Cartridge), 18 kg (Bucket), 50 kg (Hobbock), 180 kg (Drum)								
RENOLIT LX 2	–	Li-X Mineral oil	–	2	160	-30 / +160	–	Roller bearings, electric motor bearings, coupling bearings in the automotive sector, construction machines, forging presses, wheel bearings of commercial vehicles, machine tools.
 0.4 kg (Cartridge), 0.5 kg (Cartridge), 18 kg (Bucket), 50 kg (Hobbock), 180 kg (Drum)								
RENOLIT LX 3	–	Li-X Mineral oil	–	3	160	-20 / +160	–	Roller bearings, electric motor bearings, coupling bearings in the automotive sector, construction machines, forging presses, wheel bearings of commercial vehicles.
 0.4 kg (Cartridge), 18 kg (Bucket), 180 kg (Drum)								

RENOLIT

Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubri- cants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Tem- pera- ture range [°C]	Approvals, recommendations	Main application area
Multipurpose / Longlife Greases								
RENOLIT FEP 2	KP2N-20 ISO-L- XB(F)DEB 2	Lithium Mineral oil	–	2	220	-20 / +140	–	Steel mills, quarries, construc- tion equipment and forging presses, machine tools.
i     0.4 kg (Cartridge), 18 kg (Bucket), 50 kg (Hobcock), 180 kg (Drum)								
RENOLIT FEP 25	KP2-3N-20 ISO-L- XB(F)DEB 2-3	Lithium Mineral oil	–	2-3	220	-20 / +140	–	Steel mills, quarries, construc- tion equipment and forging presses.
i  0.4 kg (Cartridge), 18 kg (Bucket)								
RENOLIT FLM 2	KPF2N-30 ISO-L- XC(F)DEB 2	Lithium Mineral oil	•	2	100	-30 / +140	MAN 285 LI-PF 2	For mechanically loaded lubri- cating points, grease with MoS ₂ , agricultural machines, commercial vehicles, construc- tion industry, quarries and mining, rubber and concrete factory.
i      0.4 kg (Cartridge), 0.5 kg (Cartridge), 18 kg (Bucket), 50 kg (Hobcock), 180 kg (Drum), BULK								
RENOLIT GP 1	K1K-30 ISO-L- XC(F)CEA 1	Lithium Mineral oil	–	1	110	-30 / +120	–	Ageing resistant multipurpose greases with good corrosion protection properties for lubrication of plain and roller bearings, easily pumpable in central lubricating systems.
 18 kg (Bucket)								
RENOLIT GP 2	K2K-30 ISO-L- XC(F)CEA 2	Lithium Mineral oil	–	2	110	-30 / +120	–	
i     0.4 kg (Cartridge), 18 kg (Bucket), 50 kg (Hobcock), 180 kg (Drum)								
RENOLIT GP 3	K3K-30 ISO-L- XC(F)CEA 3	Lithium Mineral oil	–	3	110	-30 / +120	–	
i     0.4 kg (Cartridge), 18 kg (Bucket), 50 kg (Hobcock), 180 kg (Drum)								
RENOLIT LX-PEP 2	KP2N-30 ISO-L- XC(F)DEB 2	Li-X Mineral oil	–	2	170	-30 / +150	MAN 284 Li-H2, MB Approval 265.1, ZF TE-ML 12, Schaeffler Gruppe, VW TL 52 147 X, Interprecise (IDC-Bearings), Deutsche Bahn	Multipurpose grease, wheel bearings of motor vehicles, roller bearings of e-motors, needle bearings of cardan shafts, plain and roller bea- rings, ventilator grease.
i     0.4 kg (Cartridge), 0.5 kg (Cartridge), 18 kg (Bucket), 50 kg (Hobcock), 180 kg (Drum)								
RENOLIT LX-PEP 3	KP3N-30 ISO-L- XC(F)DEB 3	Li-X Mineral oil	–	3	170	-30 / +150	Interprecise (IDC-Bearings)	Multipurpose grease, wheel bearings of motor vehicles, roller bearings of e-motors, plain and roller bearings, ventilator grease
  18 kg (Bucket), 180 kg (Drum)								

Lubricating Greases / Pastes

LAGERMEISTER, RENOLIT



Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubricants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Temperature range [°C]	Approvals, recommendations	Main application area
Greases for Plain and Roller Bearings								
RENOLIT CA-LZ (Spray can: RENOLIT CA-LZ SPRAY)	KP2K-30 ISO-L- XC(F)CHB 2	Calcium Mineral oil	–	2	700	-30 / +120	–	Strongly adhesive, protects from wear even under extreme conditions, very resistant to water wash-out from metallic surfaces, long-term lubrication of passenger cars and commercial vehicles, construction industry, industrial and agricultural machines.
    0.4 kg (Cartridge), 0.5 kg (Cartridge), 18 kg (Bucket), 50 kg (Hobbock), 180 kg (Drum)								
RENOLIT CSX 15	–	CaSX Mineral oil	–	1-2	440	-20 / +180	A. Kahl Pellet- pressen	Lubrication of high loaded, low speed plain and roller bearings and can be applied when the grease has to meet high demands on corrosion protection and working stability.; is easily pumpable even in long tubes fed by centralised lubrication systems. Typical applications are plain and roller bearings in steel mills, wood pellet presses, paper industry, mining, cement mills, quarries and construction equipment.
    10 x 0.125 kg PermaFlex (Successor of the Autoluber), 18 kg (Bucket), 50 kg (Hobbock), 180 kg (Drum)								

Lubricating Greases / Pastes

Product name	Classifi- cation DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubri- cants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Tem- pera- ture range [°C]	Approvals, recommen- dations	Main application area
Greases for Plain and Roller Bearings								
RENOLIT CX-EP 1	KP1N-30 ISO-L- XC(F)DEB 1	Ca-X Mineral oil	–	1	110	-30 / +140	–	In general suitable for high thermal and mechanical loads, especially in the chemical, rubber, tire, steel, quarry and excavation industry. Good water and salt water resistance, also resists to weak acids and caustic solutions. Easily pumpable in central lubricating systems.
   18 kg (Bucket), 50 kg (Hobbock), 180 kg (Drum)								
RENOLIT CX-EP 2	KP2N-30 ISO-L- XC(F)DEB 2	Ca-X Mineral oil	–	2	110	-30 / +140	Hoesch Rothe Erde	
    0.4 kg (Cartridge), 18 kg (Bucket), 50 kg (Hobbock), 180 kg (Drum)								
RENOLIT CX-HT 2	–	CaSX Mineral oil	•	2	400	-20 / +180	–	Lubrication of high loaded, low speed plain and roller bearings, e.g. for kiln cars, construction machinery, steel mills, coal and ore mills.
   0.5 kg (Cartridge), 18 kg (Bucket), 180 kg (Drum)								
RENOLIT CX-TOM 15	–	CaSX Semi- synth. base oil	–	1-2	100	-40 / +160	SEW- Eurodrive	Industrial gear bearings, belt conveyors, paper machines, machine tools, mining.
    0.4 kg (Cartridge), 18 kg (Bucket), 50 kg (Hobbock), 180 kg (Drum)								
RENOLIT CXI 2	–	CaSX Mineral oil	–	2	400	-20 / +160	–	Lubrication of high loaded, low speed plain and roller bearings and can be applied when the grease has to meet high demands on corrosion protection and working stability. Typical applications are plain and roller bearings in steel mills, paper industry, mining, concrete industry, quarries and construction equipment.
     0.4 kg (Cartridge), 0.5 kg (Cartridge), 18 kg (Bucket), 50 kg (Hobbock), 180 kg (Drum)								
RENOLIT LX 1	–	Li-X Mineral oil	–	1	160	-30 / +160	–	Roller bearings, electric motor bearings, coupling bearings in the automotive sector, construction machines, forging presses.
    0.4 kg (Cartridge), 18 kg (Bucket), 50 kg (Hobbock), 180 kg (Drum)								
RENOLIT LX 2	–	Li-X Mineral oil	–	2	160	-30 / +160	–	Roller bearings, electric motor bearings, coupling bearings in the automotive sector, construction machines, forging presses, wheel bearings of commercial vehicles, machine tools.
     0.4 kg (Cartridge), 0.5 kg (Cartridge), 18 kg (Bucket), 50 kg (Hobbock), 180 kg (Drum)								

RENOLIT

Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubri- cants	NLGI grade	Base oil visc. at 40 °C [mm ² /s]	Tem- pera- ture range [°C]	Approvals, recommen- dations	Main application area
Greases for Plain and Roller Bearings								
RENOLIT LX-PEP 3	KP3N-30 ISO-L- XC(F)DEB 3	Li-X Mineral oil	–	3	170	-30 / +150	Interprecise (IDC-Bearings)	Multipurpose grease, wheel bearings of motor vehicles, roller bearings of e-motors, plain and roller bearings, ventilator grease
	180 kg (Drum)							
RENOLIT LZR 2 H	KP2N-30 ISO-L- XC(F)DIB 2	Li/Ca Mineral oil	–	2	230	-30 / +140	Baier & Köppel	Premium multipurpose grease, long-term rust prevention, sea- ling grease, central lubricating systems, sugar refineries, roof tile factories, paper industry, prevent standstill corrosion, hytel compatibel.
   	0.4 kg (Cartridge), 18 kg (Bucket), 50 kg (Hobcock), 180 kg (Drum)							
RENOLIT MP	KP2K-40 ISO-L- XD(F)CEB 2	Lithium Mineral oil	–	2	35	-40 / +120	DBL 6804.00 MB Approval 267.0	Multipurpose grease for lubrica- ting points in passenger cars, commercial vehicles, engines, where constant temperature does not exceed 100 °C, sliding speeds are very low and which are not exposed to high mecha- nical loads.
    	30 x 0.25 kg (Tube), 0.4 kg (Cartridge), 3 x 5 kg (Bucket), 18 kg (Bucket), 50 kg (Hobcock), 180 kg (Drum)							
RENOLIT MP PLUS	KP2K-30 ISO-L- XC(F)CEB 2	Lithium Mineral oil	–	2	100	-30 / +120	–	High quality EP multipurpose grease with high adhesiveness for the lubrication of plain and roller bearings. Only available in SR cartridges.
	0.5 kg (Cartridge)							
RENOLIT PU-FH 300	KP2R-20	PU Mineral oil	–	2	500	-20 / +180	–	Lubricating points exposed to high thermal loads and bearings with slow sliding speeds (asphalt pavers).
  	0.4 kg (Cartridge), 18 kg (Bucket), 180 kg (Drum)							
RENOLIT PU-MA 2	KPFHC2R-40 ISO-L- XD(F)FEB 2	PU PAO	•	2	100	-40 / +180	–	Lubrication of electric motors, hot-air blowers, tumble dryers, black-rubber mixers, paper industry dryers, calander bearings, etc.
  	0.4 kg (Cartridge), 18 kg (Bucket), 180 kg (Drum)							
RENOLIT S 2	KE1-2G-60 ISO-L- XE(F)BEA 1-2	Lithium Synth. ester	–	1-2	14	-60 / +100	–	Low temperature e.g. electrical motors, instruments, air traffic control systems, refrigerators, air conditioners and transmitter equipment.
   	0.4 kg (Cartridge), 5 kg (Bucket), 18 kg (Bucket), 50 kg (Hobcock), 180 kg (Drum)							

Lubricating Greases / Pastes

Product name	Classifi- cation DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubri- cants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Tem- pera- ture range [°C]	Approvals, recommen- dations	Main application area
Greases for Plain and Roller Bearings								
LAGERMEISTER SL	K2-3K-20	Lithium Mineral oil	–	2-3	100	-20 / +120	–	For lubrication of plain and roller bearings at normal operating temperatures in mechanical engineering, and conveyors. It is also suitable as a chassis and sealing grease.
	0.4 kg (Cartridge), 0.5 kg (Cartridge), 5 kg (Bucket), 18 kg (Bucket)							
LAGERMEISTER SLG	KF2K-30	Lithium Mineral oil	•	2	100	-30 / +120	–	
	0.4 kg (Cartridge), 0.5 kg (Cartridge), 45 kg (Hobcock)							
STABYL 300 AL 1	KPF1P-20	Al-X Mineral oil	•	1	320	-20 / +150	–	For plain and roller bearings, guides at highest loads, high temperatures and considerable temperature fluctuations, e.g. in raw materials industry, iron and steel works, chemical industry, sintering plants, calanders, extruders.
  	0.4 kg (Cartridge), 45 kg (Hobcock), 185 kg (Drum)							
STABYL 300 AL 2	KPF2P-20	Al-X Mineral oil	•	2	320	-20 / +150	–	
   	0.4 kg (Cartridge), 18 kg (Bucket), 45 kg (Hobcock), 185 kg (Drum)							
STABYL AX 1	KP1P-20	Al-X Mineral oil	–	1	320	-20 / +150	Palfinger Systems, Sprimag Spritzma- schinenbau	Universal greases for many applica- tions at highest specific loads, high temperatures and and considerable temperature fluctuations. Particular- ly suitable for central lubrication systems with long feed lines and low diameters.
  	0.4 kg (Cartridge), 18 kg (Bucket), 180 kg (Drum)							
STABYL AX 2	KP2P-20	Al-X Mineral oil	–	2	320	-20 / +150	Palfinger Systems, Sprimag Spritzma- schinenbau	
   	0.4 kg (Cartridge), 0.5 kg (Cartridge), 6 x 1 kg (Tin), 5 kg (Bucket), 18 kg (Bucket), 45 kg (Hobcock), 185 kg (Drum)							
URETHYN E/M 1	KPE1R-20	PU Semi- synth. base oil	–	1	150	-20 / +160	ANDRITZ, Bosch Rexroth, KHD Humboldt, Wedag Internatio- nal, NEFF Gewin- detriebe	Long-life lubrication of plain and roller bearings, e.g. electric motor bearings in textile machines, venti- lator bearings in dryers and kilns, spindle bearings. Lubrication of plastics, elastomers and sealing elements.
   	0.4 kg (Cartridge), 6 x 1 kg (Tin), 5 kg (Bucket), 18 kg (Bucket), 185 kg (Drum)							
URETHYN E/M 2	KPE2R-20	PU Semi- synth. base oil	–	2	150	-20 / +180	ANDRITZ, Bosch Rexroth, KHD Humboldt, Wedag Internatio- nal, NEFF Gewin- detriebe	Long-life lubrication of plain and roller bearings, e.g. electric motor bearings in textile machines, venti- lator bearings in dryers and kilns, spindle bearings. Lubrication of plastics, elastomers and sealing elements.
   	1000 x 10 g (Tube), 0.4 kg (Cartridge), 0.5 kg (Cartridge), 6 x 1 kg (Tin), 5 kg (Bucket), 18 kg (Bucket), 45 kg (Hobcock), 185 kg (Drum)							
LAGERMEISTER XXL	KP2P-20	PU Mineral oil	–	2	180	-20 / +160	FLSmidth MAAG Gear, KHD Hum- boldt Wedag International, Loesche, Sandvik, SMS Meer, Zeppelin Bauma- schinen	Ideally suited for the lubrication of highly-loaded plain and roller bear- ings on all kinds of construction machinery, especially under harsh operating conditions, high loads and increased temperatures. Allows reduced number of lubricants and increased regreasing intervals.
   	0.4 kg (Cartridge), 0.5 kg (Cartridge), 6 x 1 kg (Tin), 18 kg (Bucket), 45 kg (Hobcock), 180 kg (Drum)							

LAGERMEISTER, RENOLIT, STABYL, URETHYN

Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubri- cants	NLGI grade	Base oil visc. at 40 °C [mm ² /s]	Tem- pera- ture range [°C]	Approvals, recommen- dations	Main application area
Greases for Plain and Roller Bearings								
LAGERMEISTER TS	KP2N-30	Li Semi- synth. base oil	–	2	800	-30 / +140	DB-Mat.-Nr. 245467, KHD Humboldt, Wedag Interna- tional, R.STAHL, Zeppelin Bau- maschinen	For plain and roller bearings under difficult operating conditions. Especially recommended for high pressures and low revolutions per minute . Allows longer regreasing intervals when compared to con- ventional greases. Very good adhesive properties.
    0.4 kg (Cartridge), 0.5 kg (Cartridge), 18 kg (Bucket), 45 kg (Hobbock), 185 kg (Drum)								
RENOLIT UNITEMP 2	–	Synt. NaX PAO	–	2	180	-40 / +180	–	Plain and roller bearings at high temperatures.
   0.4 kg (Cartridge), 3 x 5 kg (Bucket), 18 kg (Bucket), 180 kg (Drum)								

Lubricating Greases / Pastes



Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubricants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Temperature range [°C]	Approvals, recommendations	Main application area
Greases for Gear Boxes								
RENOLIT CX-EP 0	GP0N-30	Ca-X Mineral oil	–	0	120	-30 / +140	–	In general suitable for high thermal and mechanical loads, especially in the chemical, rubber, tire, steel, quarry and excavation industry. Good water and salt water resistance, also resists to weak acids and caustic solutions. Easily pumpable in central lubricating systems.
 	18 kg (Bucket), 180 kg (Drum)							
RENOLIT EPLITH 00	GP00K-10	Lithium Mineral oil	–	00	420	-10 / +120	Müller-Weingarten Schuler	Lubrication of worm gears, bevel gears, spiral-toothed and straight-toothed gears, e.g. forming presses, machine tools, industrial gears.
 	18 kg (Bucket), 180 kg (Drum)							
RENOLIT FLM 0	–	Lithium Mineral oil	•	0	100	-30 / +120	–	For mechanically loaded lubricating points, grease with MoS ₂ and additives to improve corrosion protection, EP and AW.
	180 kg (Drum)							
RENOLIT LZR 000	GP00-000G-40	Li/Ca Mineral oil	–	00-000	43	-40 / +110	MB Approval 264.0, MAN 283 LI-P 00/000	Semi-fluid grease for central lubricating systems of commercial vehicles.
  	3 x 5 kg (Bucket), 18 kg (Bucket), 50 kg (Hobcock), 180 kg (Drum)							

GEARMASTER, RENOLIT, URETHYN

Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubri- cants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Tem- pera- ture range [°C]	Approvals, recommendations	Main application area
Greases for Gear Boxes								
RENOLIT SF 7-041	GP000K-30	Lithium Mineral oil	–	000	110	-30 / +120	–	Machine tools, labelling and packaging machines with central lubrication systems, industrial gears.
	0.45 kg (Tube), 3 x 5 kg (Bucket), 18 kg (Bucket), 50 kg (Hobbock), 180 kg (Drum)							
RENOLIT SO-GFB	GP00H-30	Sodium Mineral oil	–	00	250	-30 / +100	Siemens Flender	Fast rotating gears, gear motors, drum motors, gear couplings.
	18 kg (Bucket), 50 kg (Hobbock), 180 kg (Drum)							
RENOLIT SO-GFO 35	GP0H-30	Sodium Mineral oil	–	0	250	-30 / +100	–	Fast rotating gears, agricul- tural machines.
	20 x 1 kg (Bag), 18 kg (Bucket), 50 kg (Hobbock), 180 kg (Drum)							
EASYMESH HTS	–	Inorg. thickener Synth. base oil	–	1-2	300	-30 / +180	–	EASYMESH HTS is a non- melting grease for the lubri- cation of gears and bearings in high-temperature environ- ments. It has no drop point, very low oil separation at high temperatures and a avery low evaporatoin rate of the base oil.
	0.5 kg (Cartridge), 5 kg (Bucket), 50 kg (Hobbock), 180 kg (Drum)							
GEARMASTER LI 400	GP00N-30	Li-X Semi- synth. base oil	–	00	150	-30 / +140	Ammann Verdichtung, bielomatik Leuze, KHD Humboldt Wedag International, Maschi- nenfabrik Köppern, Outotec, SMS Meer, ThyssenKrupp Resource Technologies	For gear motors on DIY equip- ment and machine tools as well as for all types of small gears.
	5 kg (Bucket), 18 kg (Bucket), 45 kg (Hobbock)							
GEARMASTER LXG 00	GPHC00P-40	Li-X Synth. base oil	–	00	180	-40 / +160	bielomatik Leuze, ThyssenKrupp Resource Technologies	For lubrication of gears of a high power density. Sealing grease for struts in shock absorbers.
	6 x 1 kg (Tin), 5 kg (Bucket), 18 kg (Bucket), 25 kg (Hobbock), 45 kg (Hobbock), 180 kg (Drum)							
GEARMASTER ZSA	GP000K-40	Lithium Mineral oil	–	000	45	-40 / +120	bielomatik Leuze, MAN, Zeppelin Bau- maschinen	For all lubrication points in commercial vehicles which are supplied by central lubri- cation systems.
	30 x 0.38 kg (Tube), 18 kg (Bucket)							
URETHYN GE 00	GPHC00P-40	PU Synth. base oil	–	00	180	-40 / +160	–	Is used in fast-running small gears. It is characterised by a high mechanical and thermal stability as well as its compa- tibility with sealings and by its neutrality towards non- ferrous and light metals.
	1 kg (Tin), 18 kg (Bucket), 40 kg (Hobbock), 175 kg (Drum)							

Lubricating Greases / Pastes



Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubricants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Temperature range [°C]	Approvals, recommendations	Main application area
Greases for Machine Tools								
RENOLIT CHUCK PASTE	–	Li/Ca Mineral oil	•	2-3	166	-30 / +155	–	Chucks for machine tools and as mounting aide for gears and electrical motors, etc., ejectors of plastic injection moulding machines (up to +100 °C), prevent corrosion and fretting corrosion.
 0.4 kg (Cartridge), 0.5 kg (Cartridge)								
RENOLIT CX-EP 2	KP2N-30 ISO-L- XC(F)DEB 2	Ca-X Mineral oil	–	2	110	-30 / +140	Hoesch Rothe Erde	In general suitable for high thermal and mechanical loads, especially in the chemical, rubber, tire, steel, quarry and excavation industry. Good water and salt water resistance, also resists to weak acids and caustic solutions. Easily pumpable in central lubricating systems.
   0.4 kg (Cartridge), 18 kg (Bucket), 50 kg (Hobcock), 180 kg (Drum)								
RENOLIT CX-TOM 15	–	CaSX Semi-synth. base oil	–	1-2	100	-40 / +160	SEW- Eurodrive	Industrial gear bearings, belt conveyors, paper machines, machine tools, mining.
  0.4 kg (Cartridge), 18 kg (Bucket), 180 kg (Drum)								
RENOLIT LX 2	–	Li-X Mineral oil	–	2	160	-30 / +160	–	Roller bearings, electric motor bearings, coupling bearings in the automotive sector, construction machines, forging presses, wheel bearings of commercial vehicles, machine tools.
   0.4 kg (Cartridge), 0.5 kg (Cartridge), 18 kg (Bucket), 180 kg (Drum)								

Al-X: Aluminium complex; Ca-X: Calcium complex; CaSX: Calcium sulfonate complex; HDK: Gel thickener; Li/Ca: Lithium/Calcium; Li-X: Lithium complex; PU: Polyurea; Synth. NaX: Synthetic sodium complex; PFPE: Perfluoropolyether

RENOLIT



Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubricants	NLGI grade	Base oil visc. at 40 °C [mm ² /s]	Temperature range [°C]	Approvals, recommendations	Main application area
Greases for Extreme Low Temperatures								
RENOLIT HI-TEMP 100	KPHC2N-50 ISO-L-XE(F)DFB 2	Li-X PAO	–	2	100	-50 / +140	–	Used in a wide temperature range for lubrication of plain and roller bearings of, e.g. electric motors, traction motors, bearings and cardan shafts in polar regions.
  	0.38 kg (Cartridge), 18 kg (Bucket), 170 kg (Drum)							
RENOLIT S 2	KE1-2G-60 ISO-L-XE(F)BEA 1-2	Lithium Synth. ester	–	1-2	14	-60 / +100	–	Low temperature e.g. electrical motors, instruments, air traffic control systems, refrigerators, air conditioners and transmitter equipment.
  	0.4 kg (Cartridge), 5 kg (Bucket), 18 kg (Bucket), 50 kg (Hobbock)							
RENOLIT UNITEMP 2	–	Synt. NaX PAO	–	2	180	-40 / +180	–	Plain and roller bearings at high temperatures.
  	0.4 kg (Cartridge), 3 x 5 kg (Bucket), 18 kg (Bucket), 180 kg (Drum)							

Lubricating Greases / Pastes

Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubricants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Temperature range [°C]	Approvals, recommendations	Main application area
Greases for Extreme High Temperatures								
RENOLIT PU-FH 300	KP2R-20	PU Mineral oil	—	2	500	-20 / +180	—	Lubricating points exposed to high thermal loads and bearings with slow sliding speeds (asphalt pavers).
  	0.4 kg (Cartridge), 18 kg (Bucket), 180 kg (Drum)							
RENOLIT PU-MA 2	KPFHC2R-40 ISO-L- XD(F)FEB 2	PU PAO	•	2	100	-40 / +180	—	Lubrication of electric motors, hot-air blowers, tumble dryers, black-rubber mixers, paper industry dryers, calander bearings, etc.
  	0.4 kg (Cartridge), 18 kg (Bucket), 180 kg (Drum)							
STABYL EHT 2	KPE1-2T-20	PTFE Synth. base oil	—	1-2	160	-20 / +220	Bernd Münstermann	Long-life lubrication of plain and roller bearings subjected to heavy-duty thermal and mechanical loads, e.g. in drying plants, conveying and transportation equipment, film stretching machines etc.
  	0.4 kg (Cartridge), 0.5 kg (Cartridge), 5 kg (Bucket), 15 kg (Bucket), 25 kg (Hobbock), 45 kg (Hobbock)							
URETHYN MP 1	KP1R-20	PU Mineral oil	—	1	460	-20 / +180	FLSmidth MAAG Gear, Josef Fröhling, Loesche, Salzhauser Maschinenbau- technik SALMATEC, Sandvik, SMS Meer, ThyssenKrupp Resource Technolo- gies, Zeppelin Bau- maschinen	For plain and roller bearings at high temperatures, e.g. long-life lubrication of roller bearings in electric machines, ventilator bearings, conveyor roller bearings in continuous steel casting plants, pump, blower and compressor equipment.
  	18 kg (Bucket), 45 kg (Hobbock), 185 kg (Drum)							
URETHYN MP 2	KP2R-20	PU Mineralöl	—	2	460	-20 / +180	FLSmidth MAAG Gear, Josef Fröhling, Loesche, Salzhauser Maschinenbau- technik SALMATEC, Sandvik, SMS Meer, ThyssenKrupp Resource Technolo- gies, Zeppelin Bau- maschinen	
  	0.4 kg (Cartridge), 0.5 kg (Cartridge), 5 kg (Bucket), 18 kg (Bucket), 25 kg (Hobbock), 45 kg (Hobbock), 185 kg (Drum)							
PBC 1574	—	Inorg. thickener Mineral oil	•	2-3	—	-20 / +160 +260 (short term) +1200 (dry lubrication)	—	PBC 1574 is used for the prevention of seizures on screw threads, linkages, pivots, flanges and mating surfaces subject to high temperatures, fretting corrosion, salt water and aggressive environmental media. The product is used to lubricate brake callipers and prevent corrosion of disc brakes. PBC 1574 is not electrically conductive and does not affect the sensors of ABS systems.
   	100 x 5.5 g (Pillow), 10 x 0.1 kg (Tube), 12 x 0.225 kg (Tin), 0.4 kg (Cartridge), 6 x 1 kg (Tin), 5 kg (Bucket), 18 kg (Bucket)							



Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubri- cants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Tem- pera- ture range [°C]	Approvals, recommendations	Main application area
Greases for Central Lubricating Systems								
RENOLIT LX-PEP 2	KP2N-30 ISO-L- XC(F)DEB 2	Li-X Mineral oil	–	2	170	-30 / +150	MAN 284 Li-H2, MB Approval 265.1, ZF TE-ML 12, Schaeffler Gruppe, VW TL 52 147 X, Interprecise (IDC- Bearings), Deutsche Bahn	Multipurpose grease, wheel bearings of motor vehicles, roller bearings of e-motors, needle bearings of cardan shafts, plain and roller bea- rings, ventilator grease.
 0.4 kg (Cartridge), 0.5 kg (Cartridge), 18 kg (Bucket), 50 kg (Hobbock)								
RENOLIT LZR 000	GP00- 000G-40	Li/Ca Mineral oil	–	00-000	43	-40 / +110	MB Approval 264.0, MAN 283 LI-P 00/000	Semi-fluid grease for central lubricating systems of commercial vehicles.
 3 x 5 kg (Bucket), 18 kg (Bucket), 50 kg (Hobbock), 180 kg (Drum)								
RENOLIT LZR 2 H	KP2N-30 ISO-L- XC(F)DIB 2	Li/Ca Mineral oil	–	2	230	-30 / +160	Baier & Köppel	Premium multipurpose grease, long-term rust prevention, sea- ling grease, central lubricating systems, sugar refineries, roof tile factories, paper industry, prevent standstill corrosion, hytel compatible.
 24 x 0.1 kg (Tube), 0.4 kg (Cartridge), 18 kg (Bucket), 50 kg (Hobbock), 180 kg (Drum)								
RENOLIT SF 7-041	GP000K-30	Lithium Mineral oil	–	000	110	-30 / +120	–	Machine tools, labelling and packaging machines with central lubrication systems, industrial gears.
 0.45 kg (Cartridge), 3 x 5 kg (Bucket), 18 kg (Bucket), 50 kg (Hobbock), 180 kg (Drum)								

RENOLIT



Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubricants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Temperature range [°C]	Approvals, recommendations	Main application area
Greases with Solid Lubricants								
RENOLIT CX-HT 2	–	CaSX Mineral oil	•	2	400	-20 / +180	–	Lubrication of high loaded, low speed plain and roller bearings, e.g. for kiln cars, construction machinery, steel mills, coal and ore mills.
   0.5 kg (Cartridge), 18 kg (Bucket), 180 kg (Drum)								
RENOLIT EP X1	–	Lithium Mineral oil	•	1	1050	-15 / +120	Renk CMD	Heavy duty gear coupling grease.
  18 kg (Bucket), 180 kg (Drum)								
RENOLIT FLM 2	KPF2N-30 ISO-L- XC(F)DEB 2	Lithium Mineral oil	•	2	100	-30 / +140	MAN 285 LI-PF 2	For mechanically loaded lubricating points, grease with MoS ₂ , agricultural machines, commercial vehicles, construction industry, quarries and mining, rubber and concrete factory.
     0.4 kg (Cartridge), 0.5 kg (Cartridge), 18 kg (Bucket), 50 kg (Hobstock), 180 kg (Drum), BULK								
RENOLIT PU-MA 2	KPFH- C2R-40 ISO-L- XD(F)FEB 2	PU PAO	•	2	100	-40 / +180	–	Lubrication of electric motors, hot-air blowers, tumble dryers, black-rubber mixers, paper industry dryers, calander bearings, etc.
   0.4 kg (Cartridge), 18 kg (Bucket), 180 kg (Drum)								

Lubricating Greases / Pastes

Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubri- cants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Tem- pera- ture range [°C]	Approvals, recommen- dations	Main application area
Greases with Solid Lubricants								
STABYL L-TS MO	KPF2N-30	Lithium Semi- synth. base oil	•	2	800	-30 / +140	KHD Hum- boldt Wedag International, Komatsu Mining Germany, Loesche, SMS Meer, ThyssenKrupp Rothe Erde	For plain and roller bearings under difficult operating conditions. Especially recommended for high pressures and low speeds. Allows longer regreasing intervals when compared to conventio- nal greases.
    0.5 kg (SR-Cartridge), 18 kg (Bucket), 45 kg (Hobbock), 185 kg (Drum)								
STABYL MO 500	KPF2-3K-25	Lithium Mineral oil	•	2-3	110	-25 / +120	China Natio- nal Materials (Sinoma), ThyssenKrupp Resource Technologies, Zeppelin Bau- maschinen	For plain and roller bearings of all types subjected to continuous high mechani- cal loads. Mechanical engineering in- dustry, chemical industry, iron and steel works, construction machines and automotive industry.
    0.4 kg (Cartridge), 0.5 kg (SR-Cartridge), 6 x 1 kg (Tin), 18 kg (Bucket), 45 kg (Hobbock)								
GLEITMO 720	–	Synth. base oil	•	3	670	-20 / +120	–	GLEITMO 720 is a paste, especially for sealing individual components, clerances or grommets. Based on ist increased consistency, GLEITMO 720 is suitable to maintain a long-term imper- meableness to water under pressure.
 25 kg (Hobbock)								
PBC 1574	–	Inorg. thickener Mineral oil	•	–	–	-20 / +160 +260 (short term) +1200 (dry lubrica- tion)	–	PBC 1574 is used for the prevention of seizures on screw threads, linkages, pivots, flanges and mating surfaces subject to high temperatures, fretting corrosion, salt water and aggressive environmental media. The product is used to lubricate brake callipers and prevent corrosion of disc brakes. PBC 1574 is not electrically conductive and does not affect the sensors of ABS systems.
    100 x 5.5 g (Pillow), 10 x 0.1 kg (Tube), 12 x 0.225 kg (Tin), 0.4 kg (Cartridge), 6 x 1 kg (Tin), 5 kg (Bucket), 18 kg (Bucket)								
PBC TP492	–	Inorg. thickener Mineral oil	•	–	250	-20 / +160 +260 (short term) +1200 (dry lubrica- tion)	–	As a protective grease PBC TP492 acts as a lubricating seal to prevent ingress of water and corrosive solutions. It may also be used as a jointing compound and anti-squeal medium. Applications can be found in variable pitch blade fans and king pin thrust bearings of heavy trucks, and universal joints. PBC TP492 acts as an anti-fretting agent between contact surfaces with oscillating movements.
   0.4 kg (Cartridge), 10 x 0.5 kg (Tin), 20 x 1 kg (Tin), 5 kg (Bucket)								

Lubricating Greases / Pastes



Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubricants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Temperature range [°C]	Approvals, recommendations	Main application area
Greases in Spray Cans or Rattle Cans								
DUOTAC ZAHNRADSPRAY	–	Wax Mineral oil	•	–	–	-20 / +150*	–	Dry, tenacious lubricating film. Open gears, gear rims, racks, chains, outer lubrication of wire ropes in crane installations, excavators, agricultural machines, rack and pinion railways; to be applied in cold condition, for open toothed-wheel gearing, transportation and conveying systems in the metallurgical industry and roller mills, lubrication/conservation of drag ropes and chains, e.g. in non-metallic mineral processing, solid lubricating film up to +300 °C; Bitumen-free special lubricant with graphite.
 12 x 400 ml								
RENOLIT CA-LZ SPRAY (Grease: RENOLIT CA-LZ)	–	Calcium Mineral oil	–	2	700	-30 / +120*	–	Strongly adhesive, protects from wear even under extreme conditions, very resistant to water wash-out from metallic surfaces, long-term lubrication of passenger cars and commercial vehicles, construction industry, industrial and agricultural machines.
 12 x 400 ml								

* After evaporation solvent

Al-X: Aluminium complex; Ca-X: Calcium complex; CaSX: Calcium sulfonate complex; HDK: Gel thickener; Li/Ca: Lithium/Calcium; Li-X: Lithium complex; PU: Polyurea; Synth. NaX: Synthetic sodium complex; PFPE: Perfluoropolyether

FUCHS Special Applications

Lubricating Greases / Pastes



Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubricants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Temperature range [°C]	Approvals, recommendations	Main application area
Greases for Plain and Roller Bearings								
PLANTOGEL ECO 2 S	ISO-L- XD(L)CEB 2	Li/Ca Synth. ester	–	2	105	-40 / +120	EU Ecolabel DE/027/273 	Rapidly biodegradable EP multipurpose grease for plain and roller bearing lubrication, e.g. water turbines or in agriculture and forestry. Good pumpability in central lube systems.
   0.4 kg (Cartridge), 18 kg (Bucket), 50 kg (Hobcock), 180 kg (Drum)								
PLANTOGEL ECO 2 FS	–	Li/Ca Synth. ester	•	2	195	-30 / +120	–	Rapidly biodegradable EP multipurpose grease with solid lubrications for lubrication of plain and roller bearings, e.g. commercial vehicles and construction machinery.
 18 kg (Bucket), 180 kg (Drum)								
PLANTOGEL ECO 402 S	ISO-L- XD(F)BFB 2	Li/Ca Synth. ester	–	2	240	-40 / +120	EU Ecolabel DE/027/273 	Rapidly biodegradable EP multipurpose grease for lubrication of plain and roller bearings, e.g. commercial vehicles and construction machinery. Good pumpability in central lube systems.
 18 kg (Bucket)								
RENOLIT HI-SPEED 2	KHCE2K-40 ISO-L- XD(F)CEA 2	Lithium Synth. base oil	–	2	18	-40 / +120	–	For high-speed bearings, n x dm = 1,4 Mio, machine tools and textile spindles, electrical motor, linear guiding.
   0.5 kg (Cartridge), 1 kg (Tin), 18 kg (Bucket), 180 kg (Drum)								

Al-X: Aluminium complex; Ca-X: Calcium complex; CaSX: Calcium sulfonate complex; HDK: Gel thickener; Li/Ca: Lithium/Calcium; Li-X: Lithium complex; PU: Polyurea; Synth. NaX: Synthetic sodium complex; PFPE: Perfluoropolyether

PLANTO, RENOLIT

Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubri- cants	NLGI grade	Base oil visc. at 40 °C [mm ² /s]	Tem- pera- ture range [°C]	Approvals, recommendations	Main application area
Greases for Plain and Roller Bearings								
RENOLIT JP 1619 BluEV TECHNOLOGY	–	Lithium Synth. base oil	–	1	25	-50 / +120	DBL 6804.70, VW TL 52 168, Dana Spicer, Bosch, MAN	EP-grease with additive for improve corrosion protection, ageing resistance and adhesive- ness, lubrication of friction points requiring very good sliding behaviour, low start-up resistance, also at low tempera- ture, e.g. rack and pinion steer- ings, prop shafts, high-speed bearings.
 10 x 1 kg (Tin), 18 kg (Bucket), further packages on request								
RENOLIT GL 1 (Spray can: RENAX GLEIT- SPRAY)	–	Lithium Semi- synth. base oil	–	1	–	-30 / +140	–	Very adhesive, reduces friction and wear, protects from corro- sion, temperature stable, noise- suppressing, suitable for plain and roller bearings and for gear boxes, bowden cables, guide rails, sun roofs, etc.
 18 kg (Bucket), 180 kg (Drum)								
RENOLIT POLAR BLACK	–	Lithium PAO	•	1-2	340	-50 / +140	–	Fully synthetic heavy duty all- season grease with solid lubri- cants for plain and roller bear- ings of construction machines and mining vehicles exposed to changing ambient temperatures.
 180 kg (Drum)								
RENOLIT SI 400 L	KSI1R-30 ISO-L- XE(F)FEA 1	Lithium Silicone oil	–	1	80	-30 / +180	–	For slightly to normally loaded roller and friction bearings in electric motors, for joints, con- veyor chains, ventilators, dryers, controlling equipment and household appliances. RENOLIT SI 400 L guarantees a good lubrication to metal/plastic parings.
 6 x 0.1 kg (Tube), 1 kg (Tin), 185 kg (Drum)								
RENOLIT SI 400 M	KSI2R-30 ISO-L- XE(F)FEA 2	Lithium Silicone oil	–	2	80	-30 / +180	–	For slightly to normally loaded roller and friction bearings in electric motors, for joints, con- veyor chains, ventilators, dryers, controlling equipment and household appliances. RENOLIT SI 400 M guarantees a good lubrication to metal/plastic parings.
 6 x 0.1 kg (Tube), 1 kg (Tin), 5 kg (Bucket), 180 kg (Drum)								
RENOLIT SI 511 F	–	PU Silicone oil	–	0	80	-40 / +200	–	Especially suitable for re-lubrica- tion of RENOLIT SI 511 L and SI 511 M at very high tempera- ture.
 5 kg (Bucket)								

PLANTO, RENOLIT, URETHYN



Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubricants	NLGI grade	Base oil visc. at 40 °C [mm ² /s]	Temperature range [°C]	Approvals, recommendations	Main application area
Greases for Gear Boxes								
PLANTOGEL ECO 000 S	–	Li/Ca Synth. ester	–	00-000	56	-40 / +120	–	Rapidly biodegradable semi-fluid grease for lubrication of plain and roller bearings in commercial vehicles and construction machinery with central lubrication systems. Also for gear systems which are exposed to low to medium loads.
	18 kg (Bucket)							
RENOLIT LI IDM 000	GP000K-30	Lithium Mineral oil	–	000	300	-30 / +120	DMG MORI	Machine tools, linear guidance and central lubrication systems
   	10 x 1 L (Tube), 3 x 5 kg (Bucket), 50 kg (Hobcock), 180 kg (Drum)							

FUCHS Special Applications

Lubricating Greases / Pastes



Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubricants	NLGI grade	Base oil visc. at 40 °C [mm ² /s]	Temperature range [°C]	Approvals, recommendations	Main application area
Rapidly Biodegradable Greases								
PLANTOGEL ECO 1 N	ISO-L- XB(F)BEA 1	Calcium Rape seed oil	–	1	36	-20 / +80	EU Ecolabel DE/027/273 	Rapidly biodegradable lubricating grease, e.g. for lock gates or in agriculture and forestry.
	18 kg (Bucket)							
PLANTOGEL ECO 2 N	ISO-L- XB(F)BEA 2	Calcium Rape seed oil	–	2	36	-20 / +80	EU Ecolabel DE/027/273 	
   	0.4 kg (Cartridge), 18 kg (Bucket), 50 kg (Hobcock), 180 kg (Drum)							
PLANTOGEL ECO 000 S	–	Li/Ca Synth. ester	–	00-000	56	-40 / +120	–	Rapidly biodegradable semi-fluid grease for lubrication of plain and roller bearings in commercial vehicles and construction machinery with central lubrication systems. Also for gear systems which are exposed to low to medium loads.
	18 kg (Bucket)							

FUCHS Special Applications

Lubricating Greases / Pastes



Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubri- cants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Tem- pera- ture range [°C]	Approvals, recommenda- tions	Main application area
Greases for Machine Tools								
RENOLIT HI-SPEED 2	KHCE2K-40 ISO-L- XD(F)CEA 2	Lithium Synth. base oil	–	2	18	-40 / +120	–	For high-speed bearings, n x dm = 1,4 Mio, machine tools and textile spindles, electrical motor, linear guiding.
 0.5 kg (Cartridge), 1 kg (Tin), 18 kg (Bucket), 170 kg (Drum)								
GLEITMO WSP 5040	–	CaSX Mineral oil	•	2	250	-20 / +140	COLUMBUS McKINNON Engineered Products (Pfaff-silberblau), NEUERO Industrietechnik für Förderanla- gen, Sandvik, ThyssenKrupp Steel Europe	For machine elements of all types subjected to extreme pressures, shock loads and oscillatory move- ments. It is particularly appropriate if the surrounding area is subject to high humidity or the effects of splash water. For sliding pairings, which have a tendency to stick slip and scuffing (fretting). At low sliding speeds and high pressures as well as where fretting corrosion is present. Application as a high-temperature screw paste up to +1,200 °C.
 24 x 0.1 kg (Tube), 6 x 1 kg (Tin), 0.4 kg (Cartridge), 0.5 kg (SR-Cartridge), 5 kg (Bucket), 18 kg (Bucket), 200 kg (Drum)								
RENOLIT LI IDM 000	GP000K-30	Lithium Mineral oil	–	000	300	-30 / +120	DMG MORI	Machine tools, linear guidance and central lubrication systems
 10 x 1 L (Tube), 3 x 5 kg (Bucket), 50 kg (Hobstock), 180 kg (Drum)								

A high-speed train (Shinkansen) is stopped at a station platform. The train is white with a prominent orange stripe running along its side. It has a very aerodynamic, bullet-like nose. In the background, another similar train is visible on an adjacent track, and the station's infrastructure, including tracks and overhead power lines, is visible.

Product name	Classifi- cation DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubri- cants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Tem- pera- ture range [°C]	Approvals, recommendations	Main application area
Greases for Rail Traffic								
TRAMLUB F 234 MOD 2	–	Inorg. thickener Semi- synth. base oil	•	000	–	-25 / +150	Baier + Köppel, DB-Mat.-Nr. 106192, REBS Zentralschmier- technik, Siemens	For rail and wheel flange lubrication of railroad vehicles.
	18 kg (Bucket), 45 kg (Hobbock), 190 kg (Drum), 1000 kg (BULK)							
TRAMLUB SSM ECO	–	Lithium Synth. base oil	•	1-2	–	-40 / +120	CEMAFER Gleisbau- maschinen und -geräte, DB-Mat.-Nr. 783667, Schreck-Mieves	Designed for the lubrication of running edges and flanks of rails used by rail-borne traffic and serves to reduce friction and wear in the wheel/rail contact area.
	18 kg (Bucket), 45 kg (Hobbock), 180 kg (Drum)							
TRAMLUB F 234 G	–	Inorg. thickener Synth. base oil	•	00	–	-30 / +100	–	For lubrication of rails and wheel flanges of railway vehicles as well as for switch lubrication.
	18 kg (Bucket), 25 kg (Hobbock), 175 kg (Drum)							
TRAMLUB 384 G PLUS	–	Inorg. thickener Synth. base oil	•	< 000	–	-35 / +100	–	For sliding surfaces on switch points in marshalling yards on standard gauge railways, underground and regional express railways, tramways and industrial railways.
	5 kg (Bucket), 18 kg (Bucket), 25 kg (Hobbock), 50 kg (Hobbock), 170 kg (Drum)							

FUCHS Special Applications

Lubricating Greases / Pastes

Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubri- cants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Tem- pera- ture range [°C]	Approvals, recommendations	Main application area
Greases for Rail Traffic								
TRAM-SILENCE	–	Special thickener Native base oil	•	0	–	-20 / +80	Baier + Köppel, CEMAFER Gleisbauma- schinen und -geräte, SKF Lubrication Systems, REBS Zentral- schmiertechnik	Are applied sparsely to the railhead in order to fight squealing noises in tracks with extreme curves.
 12.5 kg (Hobcock)								
TRAM-SILENCE 00	–	Inorg. thickener Synth. base oil	•	00	–	-20 / +80	Baier + Köppel, CEMAFER Gleisbauma- schinen und -geräte, SKF Lubrication Systems, REBS Zentral- schmiertechnik	
 12.5 kg (Hobcock), 45 kg (Hobcock)								
LOCOLUB ECO	–	Inorg. thickener Synth. base oil	•	000	–	-30 / +80	Baier + Köppel, DB-Mat.-Nr. 517718, ÖBB-Personenverkehr, REBS Zentralschmier- technik	For wheel flange lubrication on railroad vehicles of all kinds and on portal cranes.
    5 kg (Bucket), 15 kg (Bucket), 18 kg (Bucket), 25 kg (Hobcock), 45 kg (Hobcock), 190 kg (Drum), 950 kg (BULK)								

LOCOLUB, RENOLIT, TRAMLUB



Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubricants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Temperature range [°C]	Approvals, recommendations	Main application area
Greases for Extreme Low Temperatures								
RENOLIT JP 1619 BluEV TECHNOLOGY	–	Lithium Synth. base oil	–	1	25	-50 / +120	DBL 6804.70, VW TL 52 168, Dana Spicer, Bosch, MAN	EP-grease with additive for improve corrosion protection, ageing resistance and adhesiveness, lubrication of friction points requiring very good sliding behaviour, low start-up resistance, also at low temperature, e.g. rack and pinion steerings, prop shafts, high-speed bearings.
   10 x 1 kg (Tin), 18 kg (Bucket), further packages on request								
RENOLIT POLAR BLACK	–	Lithium PAO	•	1-2	340	-50 / +140	–	Fully synthetic heavy duty all-season grease with solid lubricants for plain and roller bearings of construction machines and mining vehicles exposed to changing ambient temperatures.
 180 kg (Drum)								
RENOLIT SI 300 M	MSI2P-70	Lithium Silicone oil	–	2	75	-70 / +160	DBL 6812.10 VW TL 767 X	Low temperature grease for electric and electronic equipment, precision machines, sealing grease for radial waves sealing rings, groove rings, sealing rings; lubrication of sealing bellows.
   6 x 0.1 kg (Tube), 1 kg (Tin), 5 kg (Bucket)								
RENOLIT SI 300 S	MSI3P-70 ISO-L-XE(F)EEA 3	Lithium Silicone oil	–	3	75	-70 / +160	–	Low temperature grease for electric and electronic equipment, precision machines, sealing grease for radial waves sealing rings, groove rings, sealing rings.
 18 kg (Bucket)								

FUCHS Special Applications

Lubricating Greases / Pastes

Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubri- cants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Tem- pera- ture range [°C]	Approvals, recommenda- tions	Main application area
Greases for Extreme Low Temperatures								
URETHYN LT 60	KE1N-50	PU Synth. base oil	–	1	23	-50 / +140	Salzgitter Maschinenbau (SMAG), Sprimag Spritz Maschinenbau	For plain and roller bearings, guides, Open Gears on equipment in the low temperature range, e.g. machines and installations operating out doors in winter service, snow rollers, cable cars, transport installations in cold-storage depots, outdoor escalators. Also suitable for high-speed roller bearings.
  6 x 1 kg (Tin), 5 kg (Bucket)								

FUCHS Special Applications

Lubricating Greases / Pastes

Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubri- cants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Tem- pera- ture range [°C]	Approvals, recommen- dations	Main application area
Greases for Extreme High Temperatures								
GLEITMO 705	–	Synth. base oil	•	2	68	-20 / +1000	–	Lubrication of low speed bearings, bolts, hinges, slipper pads and slide rails on firing, drying and annealing systems. Facing for casting ladles, tools, funnels and spouts in aluminium die casting.
   6 x 1 kg (Tin), 5 kg (Bucket), 25 kg (Hobcock)								
GLEITMO 820	–	Mineral oil	•	1-2	–	-20 / +1150	–	GLEITMO 820 is used for drop forging, hot extrusion, hot rolling, hot bending. Also ideal for lubricating the column guides of the presses.
  5 kg (Bucket), 25 kg (Hobcock), 60 kg (Hobcock)								
RENOLIT ST 8-081/2	–	PTFE PFPE	–	2	510	-20 / +260	–	Do not mix with other lubricants! Surfaces must be free from residual oil and grease! Fully synthetic, thermally stable, resistant to solvents (exception: halocarbon refrigerants), oxidation stable, high load carrying abilities; plain and roller bearings of all industrial sectors, e.g. enameling lines, drying stoves, machines in the packaging industries, calander bearings, bearings of hot air and smoke gas flaps in power plants.
 1 kg (Tin)								



Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubri- cants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Tem- pera- ture range [°C]	Approvals, recommend- ations	Main application area
Greases with Solid Lubricants								
PLANTOGEL ECO 2 FS	–	Li/Ca Synth. ester	•	2	195	-30 / +120	–	Rapidly biodegradable EP multipurpose grease with solid lubrications for lubri- cation of plain and roller bearings, e.g. commercial vehicles and construction machinery.
  18 kg (Bucket), 180 kg (Drum)								
RENOLIT FOL 2	–	Lithium PAO	•	2	110	-10 / +21	MPA Stuttgart approved	Very ageing resistant, grease for sliding films in engineering, low sliding speed.
 18 kg (Bucket)								
RENOLIT LX-OTP 2	–	Li-X Polyglycol	•	1-2	360	-40 / +160	MAN	Lubrication of MAN knuckle pins.
 0.4 kg (Cartridge)								
RENOLIT POLAR BLACK	–	Lithium PAO	•	1-2	340	-50 / +140	–	Fully synthetic heavy duty all-season grease with solid lubricants for plain and roller bearings of construction machines and mining vehicles exposed to changing ambient temperatures.
 180 kg (Drum)								
STABYL TA	KPF1-2N-40	Lithium Semi- synth. base oil	•	1-2	200	-40 / +140	–	STABYL TA is a semi-synthetic special grease based on lithium soap. Its spe- cial gliding properties are achieved by a combination of synergetically effective solid lubricants.
   0.4 kg (Cartridge), 5 kg (Bucket), 18 kg (Bucket), 180 kg (Drum)								

GLEITMO, PLANTO, RENOLIT, STABYL

Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubri- cants	NLGI grade	Base oil visc. at 40 °C [mm ² /s]	Tem- pera- ture range [°C]	Approvals, recommen- dations	Main application area
Greases with Solid Lubricants								
GLEITMO 577 A	–	Inorg. thickener Synth. base oil	•	1	85	-40 / +180	GLEITMO 577 A entspricht der VW Norm TL 52 160	Special lubricating greases based on a synthetic oil and specially selected white solid lubricants for reducing friction and wear with the material pairings plastic/plastic, plastic/metal and rubber-elastomer/metal.
   6 x 1 kg (Tin), 5 kg (Bucket), 45 kg (Hobbock), 180 kg (Drum)								
GLEITMO 577 C	–	Inorg. thickener Synth. base oil	•	00	85	-40 / +180	–	GLEITMO 577 A and GLEITMO 577 C are used to lubricate O-rings seals, plastic adjustment devices and shock absorber seals.
  5 kg (Bucket), 45 kg (Hobbock), 180 kg (Drum)								
GLEITMO 582	–	Lithium Semi-synth. base oil	•	0	–	-15 / +120	–	High-performance chain grease for low and high-speed power transmitting chains, even where resistance to water, water vapour, acids and lyes is required.
 5 L (Canister), 20 L (Can)								
GLEITMO 585 M	–	Lithium Mineral oil	•	2	100	-25 / +120	KARL MAYER Textilmaschinen- fabrik, Loesche	For bearings and all types of lubricating points, particularly if they are subject to the risk of fretting corrosion (oscillating movements, vibrations, e.g. bearings on large cardan shafts).
     0.4 kg (Cartridge), 0.5 kg (SR-Cartridge), 6 x 1 kg (Tin), 5 kg (Bucket), 18 kg (Bucket), 25 kg, 45 kg (Hobbock), 180 kg (Drum)								
GLEITMO 800	–	Lithium Mineral oil	•	2	68	-25 / +100	Daimler	Thin film lubrication where extreme pressures, stick-slip, oscillating movements and fretting corrosion are prevalent. For assembly, household appliances, textile machines and packaging machines.
   12 x 0.25 kg (Tin), 6 x 1 kg (Tin), 5 kg (Bucket), 18 kg (Bucket), 250 kg (Drum)								
GLEITMO 805	–	Lithium Semi-synth. base oil	•	2	105	-20 / +110	Bosch Rexroth, Daimler, DB-Mat.-Nr. 823600, Volvo Car Germany	For articulated bearings, spindles, plain bearings, bolts, chucks and screws which are subjected to shock loads and oscillating movements. Other typical fields of application are oscillating pins on construction machinery, telescopic beams of cranes. GLEITMO 805 has proved itself for lubrication in the incremental launching process of bridges.
      24 x 0.1 kg (Tube), 0.47 kg (Cartridge), 0.5 kg (SR-Cartridge), 6 x 1 kg (Tin), 5 kg, 18 kg (Bucket), 50 kg (Hobbock), 200 kg (Drum)								
GLEITMO 805 K	–	Lithium synth. base oil	•	2*	130	-45 / +110	Volvo Car Germany	For articulated bearings, spindles, plain bearings, bolts, chucks and screws, which are subjected to shock loads and oscillating movements. Outstanding low temperature behaviour and excellent plastics compatibility.
   0.4 kg (Cartridge), 6 x 1 kg (Tin), 5 kg (Bucket), 18 kg (Bucket), 50 kg (Hobbock)								

* Also available in consistency classes NLGI 00 and 1

Al-X: Aluminium complex; Ca-X: Calcium complex; CaSX: Calcium sulfonate complex; HDK: Gel thickener; Li/Ca: Lithium/Calcium; Li-X: Lithium complex; PU: Polyurea; Synth. NaX: Synthetic sodium complex; PFPE: Perfluoropolyether

GLEITMO

Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubri- cants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Tem- pera- ture range [°C]	Approvals, recommen- dations	Main application area
Greases with Solid Lubricants								
GLEITMO 100	–	Synth. base oil	•	2	–	-35 / +400	VW, Josef Fröhling, KHD Humboldt Wedag International	Assembly pastes with an extremely large range of applications. For running-in lubrication of heavy-duty plain bearings, slide and guide rails, gear wheels and screw spindles as well as bolt and threaded connections. Facilitates assembly / disassembly and prevents stick-slip.
6 x 1 kg (Tin), 5 kg (Bucket), 25 kg (Hobbock)								
GLEITMO 100 S	–	Synth. base oil	•	1-2	–	-35 / +400	VW, Josef Fröhling, KHD Humboldt Wedag International	From approx. +140 °C dry lubrication by solid lubricants. Based on the higher MoS ₂ share GLEITMO 100 S is suitable for extreme applications.
24 x 0.1 kg (Tube), 6 x 1 kg (Tin), 5 kg (Bucket), 30 kg (Hobbock)								
GLEITMO 700	–	Synth. base oil	•	1	180	-40 / +400	–	For use in all areas of high-temperature lubrication technology, where oils and greases cannot be used e.g. kiln cab bearings (plain and roller bearings). Also for assembly and running-in processes. From approx. +200 °C dry lubrication by solid lubricants (carrier oil evaporates leaving no residue).
6 x 1 kg (Tin), 5 kg (Bucket)								
GLEITMO 155	–	Synth. base oil	•	1-2	–	-30 / +1200	–	For turbine bolts, high-temperature screws, especially stainless steel screws in the chemical industry, in refineries and power stations. Release agent for bolted flanges in the high-temperature range.
12 x 0.25 kg (Tin), 6 x 1 kg (Tin)								
GLEITMO 160 NEU	–	Al-X Mineral oil	•	2	–	-30 / +1100	FLSmidth MAAG Gear	For lubrication of turbine bolts, high-temperature screws and as release agent for flange connections in the high temperature range.
6 x 1 kg (Tin), 18 kg (Bucket)								
GLEITMO 165	–	Synth. base oil	•	2	–	-40 / +1200	VW, Volvo Car Germany	For lubrication of turbine bolts, high-temperature screws and for lubrication of bolts, slide rings, sliding rails at high temperatures. No formation of oxide layers.
6 x 1 kg (Tin), 5 kg (Bucket), 25 kg (Hobbock)								
GLEITMO 705	–	Synth. base oil	•	2	68	-20 / +1000	–	Lubrication of low speed bearings, bolts, hinges, slipper pads and slide rails on firing, drying and annealing systems. Facing for casting ladles, tools, funnels and spouts in aluminium die casting.
6 x 1 kg (Tin), 5 kg (Bucket), 25 kg (Hobbock)								

FUCHS Special Applications

Lubricating Greases / Pastes

Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubri- cants	NLGI grade	Base oil visc. at 40 °C [mm ² /s]	Tem- pera- ture range [°C]	Approvals, recommen- dations	Main application area
Greases with Solid Lubricants								
MEISSELPASTE	–	Al-X Mineral oil	•	2	–	-20 / +1100	BEKA, DELIMON, SKF-Lincoln	Copper-coloured mineral oil-based paste with aluminium complex soap and solid lubricants to lubricate socket tools and bushings of pneumatic and compressed air tools with weights ranging from 75 to 6,000 kg, pneumatic drills and other power tools. Can also be used under water and at high temperatures.
      0.4 kg (Cartridge), 0.5 kg (SR-Cartridge), 6 x 1 kg (Tin), 5 kg (Bucket), 45 kg (Hobbock), 190 kg (Drum)								
RENOLIT TFL 2	–	Lithium PAO	•	2	110	-40 / +140	–	With PTFE, for slide-pairs with and without plastic components.
 18 kg (Bucket)								

 100 x 60 g (Tin), 6 x 1 kg (Tin), 10 kg (Bucket)

GLEITMO, RENOLIT

Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubri- cants	NLGI grade	Base oil visc. at 40 °C [mm ² /s]	Tem- pera- ture range [°C]	Appro- vals, re- commen- dations	Main application area
Perfluorinated Pastes								
RENOLIT ST 8-081/2	—	PTFE PFPE	—	2	510	-20 / +260	—	Do not mix with other lubricants! Surfaces must be free from residual oil and grease! Fully synthetic, thermally stable, resis- tant to solvents (exception: halocarbon refrigerants), oxidation stable, high load carrying abilities; plain and roller bearings of all industrial sectors, e.g. enamelling lines, drying stoves, machines in the packaging industries, calander bearings, bearings of hot air and smoke gas flaps in power plants.
☐	1 kg (Tin)							

* Also available in consistency classes NLGI 00, 1 and 3

Al-X: Aluminium complex; Ca-X: Calcium complex; CaSX: Calcium sulfonate complex; HDK: Gel thickener; Li/Ca: Lithium/Calcium; Li-X: Lithium complex; PU: Polyurea;
Synth. NaX: Synthetic sodium complex; PFPE: Perfluoropolyether

FUCHS Special Applications Lubricating Greases / Pastes



Product name	Classifi- cation DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubri- cants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Tem- pera- ture range [°C]	Approvals, recommen- dations	Main application area
Greases in Spray Cans or Rattle Cans								
RENAX GLEITSPRAY (Grease: RENOLIT GL 1)	—	Lithium Semi- synth. base oil	—	1	—	-30 / +140*	—	Very adhesive, noise-suppressing, reduces friction and wear, protects from corrosion. Suitable for plain and roller bearings and for gear boxes, bowden cables, guide rails, sun roofs, etc.
	12 x 400 ml							

* After evaporation solvent

Al-X: Aluminium complex; Ca-X: Calcium complex; CaSX: Calcium sulfonate complex; HDK: Gel thickener; Li/Ca: Lithium/Calcium; Li-X: Lithium complex; PU: Polyurea;
Synth. NaX: Synthetic sodium complex; PFPE: Perfluoropolyether

RENOLIT



Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubricants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Temperature range [°C]	Approvals, recommendations	Main application area
Greases for Special Applications								
RENOLIT FOL 2	–	Lithium PAO	•	2	110	-10 / +21	MPA Stuttgart approved	Very ageing resistant, grease for sliding films in engineering, low sliding speed.
🪴	18 kg (Bucket)							
RENOLIT SI 300 M	MSI2P-70	Lithium Silicone oil	–	2	75	-70 / +160	DBL 6812.10, VW TL 767 X	Low temperature grease for electric and electronic equipment, precision machines, sealing grease for radial waves sealing rings, groove rings, sealing rings; lubrication of sealing bellows.
⚠️ 🪴 🪴	6 x 0.1 kg (Tube), 1 kg (Tin), 5 kg (Bucket)							
RENOLIT SI 300 S	MSI3P-70 ISO-L-XE(F)EEA 3	Lithium Silicone oil	–	3	75	-70 / +160	–	Low temperature grease for electric and electronic equipment, precision machines, sealing grease for radial waves sealing rings, groove rings, sealing rings.
🪴	18 kg (Bucket)							
RENOLIT SI 410 M	MSI2K-50	Calcium Silicone oil	–	2	750	-55 / +120	eurofins (F)	Beer tap grease for lubrication of taps, bearings and sealings of fermentation and filling plants for beverages, food plants and packaging.
⚠️ 🪴 🪴 🪴	6 x 0.1 kg (Tube), 1 kg (Tin), 5 kg (Bucket), 180 kg (Drum)							

CEPLATTYN, GLEITMO, RENOLIT, STABYL

Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubricants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Temperature range [°C]	Approvals, recommendations	Main application area
Greases for Special Applications								
GLEITMO 850 ST	–	Hybrid Semi-synth. base oil	•	1	110	-40 / +130	–	This lubricating grease has been customized to the extremely challenging requirements in blade and pitch bearings of wind turbines. This is where GLEITMO 850 ST shows an unprecedented reliability and versatility to meet the requirements regarding wear protection, corrosion protection and suitability at low temperatures. The product is also characterized by the necessary suitability for progressive distributor systems of common manufacturers and represents a benchmark when it comes to protection from standstill marks.
 5 kg (Bucket), 170 kg (Drum)								
GLEITMO 830	–	Mineral oil	•	2	–	-25 / +100	–	GLEITMO 830 is used in cold forming processes, where commonly used lubricants are not satisfactory. GLEITMO 830 is proven for most demanding requirements in stamping, drawing, stretch-forming, bending, rolling, and forming of profiles. GLEITMO 830 is suitable for different materials such as austenitic and ferritic steels, copper, aluminium, zinc and their alloys.
 5 kg (Bucket), 18 kg (Bucket), 60 kg (Hobcock)								
SILICONFETT 300 MITTEL BLQ	MSI2P-70	Lithium Silicone oil	–	2	75	-35 / +21	MPA Stuttgart approved	Bridge bearing quality (DIN EN 1337-2)
 18 kg (Bucket)								
CEPLATTYN GT 10	–	Synth. base oil	•	–	10000	0 / +140	FLSmidth, KHD Humboldt Wedag International, Metso, Outotec, ThyssenKrupp Industrial Solutions, Sinoma, Citic, Ferry Captain	CEPLATTYN GT 10 is a high-viscosity adhesive lubricant for heavy-duty Open Gears, e.g. on kilns, mills and driers in the raw materials industry. CEPLATTYN GT 10 has been especially developed for the application on Open Gears under critical operating conditions, such as low-speed kiln drives with increased tooth flank temperatures, mill drives with extreme drive power, and drives which are frequently operated under start-stop conditions.
   1 kg (Tin), 45 kg (Hobcock), 190 kg (Drum), BULK								

FUCHS Special Applications

Lubricating Greases / Pastes

Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubricants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Temperature range [°C]	Approvals, recommendations	Main application area
Greases for Special Applications								
CEPLATTYN GT 30	–	Synth. base oil	•	–	28000	+5 / +140	Falk Rexnord, Ferry Capitain	CEPLATTYN GT 30 is a high-viscosity adhesive lubricant for heavy-duty Open Gears, e.g. on kilns, mills and driers in the raw materials industry. CEPLATTYN GT 30 has been especially developed for the application on Open Gears under critical operating conditions, such as low-speed kiln drives with increased tooth flank temperatures, mill drives with extreme drive power, and drives which are frequently operated under start-stop conditions.
 190 kg (Drum), BULK								
CEPLATTYN GT P	–	Al-X Semi-synth. base oil	•	1-2	300	-30 / +140	FLSmidth, KHD Humboldt Wedag International, Sinoma, ThyssenKrupp Industrial Solutions	Used as a priming lubricant for Open Gears, is especially adjusted to CEPLATTYN GT and CEPLATTYN SF operational lubricants.
 18 kg (Bucket)								
CEPLATTYN GT RN	–	Synth. base oil	•	–	3000	-10 / +140	ThyssenKrupp Industrial Solutions, FLSmidth, KHD Humboldt Wedag International, Sinoma, Ferry Capitain	Is used to smoothen the manufacturing surface roughness of the tooth surfaces and to optimise the contact pattern on newly installed gear rims and pinions.
 175 kg (Drum), BULK								
CEPLATTYN 100 HV	–	Al-X Mineral oil	•	–	1750	0 / +140	FLSmidth, Sinoma, Ferry Captain, CMD, ThyssenKrupp Industrial Solutions	For bath lubrication of Open Gears in mills, dryers and rotary kilns.
   1 kg (Tin), 18 kg (Bucket), 45 kg (Hobcock), 170 kg (Drum)								
CEPLATTYN GT 3	–	Synth. base oil	•	–	3200	-5 / +60	ThyssenKrupp Industrial Solutions, Sinoma	CEPLATTYN GT 3 is a high-viscosity adhesive lubricant for heavy-duty Open Gears, e.g. on kilns, mills and driers in the raw materials industry, used with bath or circulation systems. CEPLATTYN GT 3 has been especially developed for the application on Open Gears under critical operating conditions, such as kiln and mill drives in the cement and mining industry.
 190 kg (Drum), BULK								

FUCHS Special Applications

Lubricating Greases / Pastes

Product name	Classification DIN 51502 ISO 6743-9	Thickener Base oil	Solid lubricants	NLGI grade	Base oil visc. at 40 °C [mm²/s]	Temperature range [°C]	Approvals, recommendations	Main application area
Greases for Special Applications								
CEPLATTYN BL	OGPF2P-20	Al-X Mineral oil	•	2	500	-40 / +150	FLSmidth, BEKAwind	For lubrication of machines and machine parts under difficult operating conditions, e.g. gear wheels, slide bars, chains, worm gears and ropes as well as for lubrication of machine parts subject to outdoor temperature fluctuations and environmental influences. Also suitable for use on wind turbine actuators.
    0.5 kg (Cartridge), 6 x 1 kg (Tin), 5 kg (Bucket), 18 kg (Bucket), 25 kg (Hobbock), 45 kg (Hobbock), 185 kg (Drum)								
CEPLATTYN SF 10	–	Synth. base oil	–	–	10000	0 / +120	Ferry Capitain, Metso, Outotec, ThyssenKrupp Industrial Solutions, FLSmidth, KHD, CMD, Citic	The high base oil viscosity guarantees a stable lubricant film between the contacting tooth flanks. This leads to the exceptional efficiency together with the new type of additive package. Use on Open Gears in mills and large drive chains in raw materials industry. Meets AGMA 2005-D94/13 EP/13 S.
  1 kg (Tin), 45 kg (Hobbock), 185 kg (Drum)								
CEPLATTYN SF 30	–	Synth. base oil	–	–	30000	+15 / +120	Metso, FLSmidth, ThyssenKrupp Industrial Solutions, Citic, Falk, Rexnord	For use on Open Gears in the raw materials industry. The extremely high base oil viscosity guarantees a good separation of the friction partners resulting in an exceptional efficiency. Reliable operation of the drives is guaranteed even with small amounts of the lubricant.
  50 kg (Hobbock), 185 kg (Drum), BULK								
CEPLATTYN BL WHITE	OGPF1-2P-30	Al-X Semi-synth. base oil	•	1-2	300	-50 / +160	–	CEPLATTYN BL WHITE is especially used for the lubrication of azimuth and pitch gears in wind power plants. In addition to that it is used, e.g. on gears, sliding tracks, chains, worm gears, and wire ropes, or for the lubrication of machine parts subjected to considerable temperature fluctuations and environmental influences.
  0.4 kg (Cartridge), 3.6 kg (Cartridge), 5 kg (Bucket), 18 kg (Bucket), 185 kg (Drum)								
CEPLATTYN HT	–	Synth. base oil	•	–	160	-20 / +600	FLSmidth, KHD Humboldt Wedag International, ThyssenKrupp Industrial Solutions, Sinoma, Sprimag	For internal lubrication of riding rings fitted to rotary kilns or dryers.
   1 kg (Tin), 18 kg (Bucket), 45 kg (Hobbock), 185 kg (Drum)								

METAL PROCESSING LUBRICANTS

Modern metal processing lubricants are subjected to a variety of demands. They must be both economical and efficient, and free of ingredients that are harmful to the environment and human health.

FUCHS has the necessary process expertise to optimally meet the very specific and diverse requirements in metal processing. The comprehensive and high-performance lubricant range from FUCHS is characterized by outstanding application results in all areas of metal processing - from cutting fluids, quenching fluids and forming lubricants to cleaners and corrosion preventives.

Metal Processing Lubricants

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Cutting Fluids – Water-miscible



Product name	Milky emulsion	Trans-lucent emulsion	Solution fully synthetic	Density at 15 °C	pH value 5%	Mixing water hardness	Bor-free	Material recommendation	Main application areas
Core Range – Global and European Products									
ECOCOOL GLOBAL 20	–	• (ME EP)	–	0.99	9.6	S, M, H	•	Steel, alloyed steel, Al*	Helps maximize operational productivity, improves the work environment and generates cost savings. Developed specifically for the automotive industry.
   20 L (Canister), 205 L (Drum), 1000 L (IBC)									
ECOCOOL GLOBAL 1000	• (EP)	–	–	0.99	9.4	S, M, H	•	Steel, high-alloy steel, Al, Ti, Ni	Metal processing fluid with special quality properties for high-performance metal machining, especially in aerospace, medical engineering, semiconductor machine part production and many other industrial applications. Approval for medical engineering, DMG MORI, Rolls-Royce, Safran, GROB, ASML Grade 2
   20 L (Canister), 205 L (Drum), 1000 L (IBC)									
ECOCOOL AFC 1515	•	–	–	0.98	9.5	S, M, H	•	Steel, alloyed steel, Al*	For roughing and precision machining, as well as the grinding of steel and aluminium materials; excellent lubricity.
    20 L (Canister), 60 L (Drum), 205 L (Drum), 1000 L (IBC), Tank Truck									
ECOCOOL FERROSTAR MBF	–	• (ME EP)	–	0.97	9.6	S, M, H	•	Steel, alloyed steel, Al*	Metal processing fluid for general machining, especially for special cast iron alloys and high-alloy steels; excellent cooling, wetting and flushing; low drag-out losses. GROB approval, DMG MORI approval
    20 L (Canister), 205 L (Drum), 1000 L (IBC), Tank Truck									

ME = Micro-emulsion; EP = EP additivation; ME EP = Micro-emulsion with EP additives; S = Water hardness: Soft; M = Water hardness: Medium; H = Water hardness: Hard;
 * = Check compatibility with critical alloys; • = Yes; – = No; (•) – conditional

Cutting Fluids – Water-miscible

Product name	Milky emulsion	Trans-lucent emulsion	Solution fully syn-thetic	Densi-ty at 15 °C	pH value 5%	Mixing water hard-ness	Bo-ron-free	Material recom-menda-tion	Main application areas
Core Range – Global and European Products									
ECOCOOL MG 22 B	–	–	•	1.03	9.5	S, M, H	•	Steel, cast iron	Aqueous solution, particularly suitable for cooling and lubrication during machining and grinding of ferrous materials.
 205 L (Drum)									
ECOCOOL S-FC VW	–	–	• (EP)	1.05	9.4	S, M	•	Steel, cast iron, Al*	Fully synthetic metal processing fluid for grinding and machining of cast iron and steel, extremely low foaming, good wetting and flushing properties, leaves no sticky residues.
   20 L (Canister), 205 L (Drum), 1000 L (IBC)									
ECOCOOL S-CO 5 BF	–	–	•	1.1	9.0	S, M	•	Hard metal, yellow metal	Fully-synthetic metal processing fluid for the machining and grinding of tungsten carbides and nonferrous metals; reduces cobalt leaching and soap formation; low foaming; low drag-out losses. Also suitable for yellow metal processing.
  20 L (Canister), 205 L (Drum)									
Local Core Range – Completing the Global & EU Core Range									
ECOCOOL HPL 730 NEW	• (EP)	–	–	0.99	9.2	S, M, H	•	Steel, alloyed steel, Al*	Multifunctional metalworking fluid for difficult machining, for reaming and threading with high surface qualities.
   200 L (Drum), 1000 L (IBC), Tank Truck									
ECOCOOL S-G2	–	–	• (EP)	1.06	8.8	S, M	•	Steel, Al*	For the most difficult machining and grinding operations on steel and aluminium alloys; very low foaming; suitable for high pressures and soft water; greater economy due to low drag-out losses
  205 L (Drum), 1000 L (IBC)									
ECOCOOL TN 2530	• (EP)	–	–	0.98	9.4	M, H	•	Steel, alloyed steel, Titan, Inconel, Al*	With EP additives; universally applicable for aluminium materials, titanium and stainless steels; stable at high pressures and low foaming
 205 L (Drum)									
ECOCOOL VHCM-1 CP	–	• (ME EP)	–	0.99	9.4	M, H	•	Steel, cast iron	Metal processing fluid for general machining and grinding operations; the boron-free equivalent to ECOCOOL R - VHCM; greater economy due to low drag-out losses.
    20 L (Canister), 205 L (Drum), 1000 L (IBC), Tank Truck									
ECOCOOL ALUSTAR BF-V	•	–	–	0.98	8.4	M	•	Steel, alloyed steel, Al*, non-ferrous materials	High-quality metalworking fluid for machining critical aluminium alloys; pH neutral; with excellent lubricating effect, good wetting and flushing properties. Not suitable for machining cast iron.
 205 L (Drum)									

ECOCOOL

Product name	Milky emulsion	Translucent emulsion	Solution fully synthetic	Density at 15 °C	pH value 5%	Mixing water hardness	Boron-free	Material recommendation	Main application areas
Water-miscible Cutting Fluids with DMG MORI and DMQP Approval									
ECOCOOL FERROSTAR MBF	–	• (ME EP)	–	0.97	9.6	S, M, H	•	Steel, alloyed steel, Al*	Metal processing fluid for general machining, especially for special cast iron alloys and high-alloy steels; excellent cooling, wetting and flushing; low drag-out losses. GROB approval, DMG MORI approval
 20 L (Canister), 205 L (Drum), 1000 L (IBC), Tank Truck									
ECOCOOL GLOBAL 1000	• (EP)	–	–	0.99	9.4	S, M, H	•	Steel, high-alloy steel, Al, Ti, Ni	Metal processing fluid with special quality properties for high-performance metal machining, especially in aerospace, medical engineering, semiconductor machine part production and many other industrial applications. Approval for medical engineering, DMG MORI, Rolls-Royce, Safran, GROB, ASML Grade 2
 20 L (Canister), 205 L (Drum), 1000 L (IBC)									
ECOCOOL VHCM - 1K	–	• (ME)	–	0.99	9.4	S, M	•	Steel, cast iron	Metal processing fluid for general machining and grinding. Boron-free and preserved alternative of ECOCOOL R-VHCM. Low top up concentration required. Suitable for turning, drilling, milling and grinding.
 205 L (Drum), 1000 L (IBC), Tank Truck									
ECOCOOL AFC-IDM	• (EP)	–	–	0.95	9.3	S, M, H	•	Steel, alloyed steel, Al*	Multifunctional universal product for drilling, turning, milling and grinding of various alloys. DMQP Product
 20 L (Canister), 205 L (Drum), 1000 L (IBC), Tank Truck									
ECOCOOL S-FC IDM	–	–	•	1.05	9.5	S, M	•	Steel, cast iron, Al*	Fully synthetic coolant for grinding and machining of cast iron, steel and conventional aluminium alloys. DMG MORI Approval
 205 L (Drum), 1000 L (IBC)									

Cutting Fluids – Water-miscible

Product name	Milky emulsion	Trans-lucent emulsion	Solution fully synthetic	Density at 15 °C	pH value 5%	Mixing water hardness	Bo-ron-free	Material recommendation	Main application areas
Machining Aluminium									
ECOCOOL ALUSTAR BF-V	•	–	–	0.98	8.4	M	•	Steel, alloyed steel, Al*, non-ferrous materials	High-quality metalworking fluid for machining critical aluminium alloys; pH neutral; with excellent lubricating effect, good wetting and flushing properties. Not suitable for machining cast iron.
 205 L (Drum)									
ECOCOOL AFC 1515	•	–	–	0.98	9.5	S, M, H	•	Steel alloyed steel, Al*	For roughing and precision machining, as well as the grinding of steel and aluminium materials; excellent lubricity.
    20 L (Canister), 60 L (Drum), 205 L (Drum), 1000 L (IBC), Tank Truck									
ECOCOOL GLOBAL 1000	• (EP)	–	–	0.99	9.4	S, M, H	•	Steel, high-alloy steel, Al, Ti, Ni	Metal processing fluid with special quality properties for high-performance metal machining, especially in aerospace, medical engineering, semiconductor machine part production and many other industrial applications. Approval for medical engineering, DMG MORI, Rolls-Royce, Safran, GROB, ASML Grade 2
   20 L (Canister), 205 L (Drum), 1000 L (IBC)									
ECOCOOL S-G 2	–	–	• (EP)	1.06	8.8	S, M	•	Steel, Al*	For the most demanding machining and grinding operations on steel and aluminium alloys; extremely low foaming; suitable for soft water and high pressures; better economy due to low drag-out losses.
  205 L (Drum), 1000 L (IBC)									
ECOCOOL MACH 300	• (EP)	–	–	1.01	9.2	S, M, H	•	Steel, high-alloy steel, Al, Ni	Milky emulsion of novel Metal processing fluid technology for high performance machining such as broaching, drilling, threading of various materials. Especially suitable for staining-critical aluminium with high surface quality requirements.
   20 L (Canister), 205 L (Drum), 1000 L (IBC)									

ECOCOOL

Product name	Milky emulsion	Trans-lucent emulsion	Solution fully synthetic	Density at 15 °C	pH value 5%	Mixing water hardness	Bor-on-free	Material recommendation	Main application areas
Machining Cast Iron and Low-Alloy Steels									
ECOCOOL FERROSTAR MBF	–	• (ME EP)	–	0.97	9.6	S, M, H	•	Steel, alloyed steel, Al*	Metal processing fluid for general machining, especially for special cast iron alloys and high-alloy steels; excellent cooling, wetting and flushing; low drag-out losses. GROB approval, DMG MORI approval
   	20 L (Canister), 205 L (Drum), 1000 L (IBC), Tank Truck								
ECOCOOL FC 11	–	• (ME)	–	0.99	9.6	S, M, H	–	Steel, cast iron	Metalworking fluid for general machining and grinding, especially for steel and cast iron materials, with good corrosion protection; low top-up concentration required.
 	20 L (Canister), 205 L (Drum)								
ECOCOOL MACH 15 <i>NEW</i>	–	• (ME)	–	1.0	9.8	S, M, H	–	Steel, cast iron	Metalworking fluid for general machining and grinding, especially for steel and cast iron materials, with good corrosion protection, good price-performance value, very economical, low top-up concentration required.
 	20 L (Canister), 205 L (Drum)								
Machining High-Alloy Steels and Hot Strength Materials									
ECOCOOL TN 2530	• (EP)	–	–	0.98	9.4	M, H	•	Steel, alloyed steel, Titan, Inconel, Al*	Metal processing fluid with EP additives; universally applicable for aluminium materials, titanium and stainless steels; high-pressure stable and low foaming.
	205 L (Drum)								
ECOCOOL TN 2550	• (EP)	–	–	0.97	9.3	M, H	•	Titanium, Al, stainless steel	Advanced product for machining difficult-to-machine materials, mineral oil-free, sustainable formulation, approval: MTU, GROB
 	205 L (Drum), 1000 L (IBC)								
ECOCOOL GLOBAL 1000	• (EP)	–	–	0.99	9.4	S, M, H	•	Steel, high-alloy steel, Al, Ti, Ni	Metal processing fluid with special quality properties for high-performance metal machining, especially in aerospace, medical engineering, semiconductor machine part production and many other industrial applications. Approval for medical engineering, DMG MORI, Rolls-Royce, Safran, GROB, ASML Grade 2
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)								
ECOCOOL NI 1000	• (EP)	–	–	0,98	9,3	M, H	•	Nickel alloys, stainless steel, heat resistant materials	High-performance product for machining heat-resistant materials such as nickel-based alloys (INCONEL 718) as well as stainless steel and steel. High pressure stable, approval Medical technology, MTU
	205 L (Drum)								

Cutting Fluids – Water-miscible

Product name	Milky emulsion	Translucent emulsion	Solution fully synthetic	Density at 15 °C	pH value 5%	Mixing water hardness	Boron-free	Material recommendation	Main application areas
Machining Nonferrous Metals (Copper, Brass, Bronze)									
ECOCOOL AFB 300 <i>NEW</i>	• (EP)	–	–	0.99	9.3	S, M, H	•	Steel, alloyed steel, Al, Ni, yellow metal	Milky emulsion based on innovative metalworking fluid technology for high-performance machining such as broaching, drilling, thread cutting, reaming and boring out a wide range of materials. Especially suitable for lead-containing non-ferrous metals, preventing the formation of lead soaps.
 	20 L (Canister), 205 L (Drum)								
ECOCOOL S-CO 5 BF	–	–	•	1.1	9.0	S, M	•	Hard metal, yellow metal	Fully-synthetic metal processing fluid for the machining and grinding of tungsten carbides and nonferrous metals; reduces cobalt leaching and soap formation; low foaming; low drag-out losses. Also suitable for yellow metal processing.
 	20 L (Canister), 205 L (Drum)								
Machining Magnesium									
ECOCOOL 2516 MG-DC	•	–	–	0.98	9.1	H	•	Al*, Mg	High-quality, universally applicable; specially developed for the machining of magnesium; mixing water > 30 °dH; stable up to 200 °dH without deposits forming
	205 L (Drum)								
Special Products									
ECOCOOL GS 2000	–	–	•	1.06	8.0	–	•	Cast iron, steel	Thread cutting medium for water pipes; approved by the German DVWG; dyed red
 	205 L (Drum), 1000 L (IBC)								
ECOCOOL S-CO 5 BF	–	–	•	1.1	9.0	S, M	•	Hard metal, yellow metal	Fully-synthetic metal processing fluid for the machining and grinding of tungsten carbides and nonferrous metals; reduces cobalt leaching and soap formation; low foaming; low drag-out losses. Also suitable for yellow metal processing.
 	20 L (Canister), 205 L (Drum)								
ECOCOOL GLOBAL S 240	–	–	•	1.05	9.0	S, M	•	Composites	Fully-synthetic metal processing fluid for machining CFRP/GFRP, good wetting and flushing properties, extreme less foaming, leaves no sticky residues, AIRBUS Approval
	205 L (Drum)								

Service Additives for Cutting Fluids

ECOCOOL

Product name	Description/ features	Application conc. (of the final dilution) [%]	Increasing corrosion protection	Increasing pH value	Main application areas
Top-up Concentrate for Water-miscible Metal Processing Fluids					
ECOCOOL ALKALISATOR G 	Primary alkanolamine 20 L (Canister), 200 L (Drum)	0.1 - 0.5 stepwise	(•)	•	Increases pH value.
ECOCOOL AKTIV CU 	Copper passivator 20 L (Canister)	0.1 - 0.3	•	–	Combats the staining and greenish discolouration of nonferrous metals.
ECOCOOL AKTIV ALU 	To avoid Al-staining 20 L (Canister)	0.1 - 0.15	•	–	Avoids aluminium staining. Not suitable for synthetic metalworking fluids.
NETZMITTEL 12 	Wetting agent 20 L (Canister)	0.05 - 0.2	–	–	Improves wetting properties.
ECOCOOL AKTIV CPO 	Corrosion protection for ferrous metals 20 L (Canister), 205 L (Drum), 1000 L (IBC)	0.1 - 0.3	•	–	Increases the corrosion protection offered by emulsions and synthetic metal processing fluid.
Defoamers, Synergetically Matched to ECOCOOL Water-miscible Metal Processing Fluids					
ANTIFOAM 46 	Si-organic chemistry 5 L (Canister)	0.0025 - 0.005	–	–	Standard defoamer for emulsions and synthetic solutions. Before use, mix 1:1 with the processing fluid in use and add slowly.
ANTIFOAM 46 W 	Si-organic chemistry 5 L (Canister)	0.004 - 0.008	–	–	Equivalent to ANTIFOAM 46 but with solubilizers, therefore mixes well.
ANTIFOAM 48 	Si-organic chemistry 5 L (Canister)	0.005 - 0.01	–	–	For use with emulsions and synthetic solutions. Before use, mix 1:1 with the processing fluid in use and add slowly.
ANTIFOAM 1860 	Si-organic chemistry 5 L (Canister)	0.005 - 0.01	–	–	Standard defoamer for emulsions and synthetic solutions. Before use, mix 1:1 with the processing fluid in use and add slowly.
ANTIFOAM 51 G 	Si-organic chemistry 5 L (Canister), 205 L (Drum)	0.001 - 0.01	–	–	With solubilizers, therefore mixes well.
ANTIFOAM LC 30 W 	Si-organic chemistry 5 L (Canister)	0.001 - 0.01	–	–	Mixture of various defoamers; very broad range of applications. With solubilizers; no pre-dilution is necessary.
ANTIFOAM WS 1 	Ca-hardness increaser 5 L (Canister), 20 L (Canister)	from 0.01	–	–	Component to increase water hardness; as a rule, 0.01% increases water hardness by about 1 °dH, to a max. of 30 °dH

Service Additives for Cutting Fluids

Product name	Application concentration (of the final dilution) [%]	Fungicide	Bactericide	pH value effect	Main application areas
Formaldehyde-free Bactericides and Fungicides for the Maintenance of ECOCOOL Water-miscible Metal Processing Fluids					
ACTICIDE MBS	0.1 - 0.2	•	•	–	Combination of fungicide and bactericide for emulsions and synthetic solutions
  	5 L (Canister), 25 kg (Canister), 200 kg (Drum), 1000 L (IBC)				
ACTICIDE M 20	0.1 - 0.2	•	•	–	Fungicide and bactericide for emulsions, chloride-free, AOX-free
 	5 kg (Canister), 200 kg (Drum)				
ACTICIDE MV	0.1 - 0.2	–	•	–	Fast working bactericide for emulsions and synthetic solutions
  	5 kg (Canister), 25 kg (Canister), 1000 L (IBC)				

Neat Cutting Fluids

ECOCUT



Product name	Kin. visc. at 40 °C [mm²/s]	Density at 15 °C	Flash point [°C]	Steel	High- alloy steel	Alumi- nium	Copper, copper alloys	Main application areas
ECOCUT HFN Series								
ECOCUT HFN 5 LE-HC 	4	0.83	136	•	–	•	•	Multipurpose cutting oil; low evaporation and low misting; copper inactive; for grinding and cutting operations with geometrically defined cutting tools. The low viscosity versions (4 and 10) are also suitable for honing; the higher viscosities can be used as multi-functional oils (HLP hydraulic oils).
205 L (Drum), 1000 L (IBC), Tank Truck								
ECOCUT HFN 10 LE-HC 	10	0.84	170	•	–	•	•	
205 L (Drum), 1000 L (IBC), Tank Truck								
ECOCUT HFN 16 LE 	15	0.86	200	•	–	•	•	
205 L (Drum), 1000 L (IBC)								
ECOCUT HFN 22 LE 	22	0.85	212	•	–	•	•	
205 L (Drum), 1000 L (IBC)								
ECOCUT HFN 32 LE 	30	0.85	200	•	–	•	•	
205 L (Drum), 1000 L (IBC), Tank Truck								

Neat Cutting Fluids

Product name	Kin. visc. at 40 °C [mm²/s]	Density at 15 °C	Flash point [°C]	Steel	High- alloy steel	Alumi- nium	Copper, copper alloys	Main application areas
ECOCUT 500 Series								
ECOCUT 515 	15 205 L (Drum)	0.90	158	•	•	–	–	Neat cutting oils with high EP additive content for machining operations and especially thread cutting on high alloy steels (stainless steels). ECOCUT 515 is very good suitable for deep hole drilling. The products are zinc free and low in oil mist.
ECOCUT 522 	24 205 L (Drum)	0.90	204	•	•	–	–	
ECOCUT 600 Series								
ECOCUT 610 A  	10 1000 L (IBC), Tank Truck	0.85	160	•	•	–	–	Neat cutting oils universally applicable for the most machining operations with geometrically defined edge in alloyed steels. Special additives reduce the friction and increase the tool life. Low misting, chlorine-free and zinc-free.
ECOCUT 615 LE   	16 205 L (Drum), 1000 L (IBC), Tank Truck	0.88	210	•	•	–	–	
ECOCUT 615 A  	17 205 L (Drum), 1000 L (IBC)	0.87	200	•	•	–	–	
ECOCUT 628 LE   	26 205 L (Drum), 1000 L (IBC), Tank Truck	0.86	210	•	•	–	–	
ECOCUT 700 Series								
ECOCUT 710 LE  	10 205 L (Drum), 1000 L (IBC)	0.87	158	•	•	–	–	High performance oils with high EP additive content and universally applicable for operations on high alloy steels (Cr-Ni steels) in gear machining such as gear hobbing, broaching and deep hole drilling. Low misting, chlorine-free and zinc-free.
ECOCUT 715 LE   	17 20 L (Canister), 205 L (Drum), 1000 L (IBC)	0.89	200	•	•	–	–	
ECOCUT 717 EK  	18 205 L (Drum), Tank Truck	0.89	196	•	•	–	(•)	
ECOCUT 720 LE  	21 205 L (Drum), 1000 L (IBC)	0.89	210	•	•	–	–	
ECOCUT 732 LE  	32 20 L (Canister), 205 L (Drum)	0.88	190	•	•	–	–	

Neat Cutting Fluids

Product name	Kin. visc. at 40 °C [mm²/s]	Density at 15 °C	Flash point [°C]	Steel	High- alloy steel	Alumi- nium	Copper, copper alloys	Main application areas	
ECOCUT LCF Series, based on sustainable base oil									
ECOCUT LCF 218	18	0.86	195	•	(•)	•	•	High-performance cutting oil based on sustainable, resource-saving mineral oil for machining steel and non-ferrous metals; also suitable for grinding. Universally applicable in machining centres and multi-spindle machines. Odourless, high flash point. Supports the circular economy; protects resources and is sustainable for the environment.	
	205 L (Drum)								
ECOCUT LCF 15	14	0.85	195	•	•	•	–	High-performance cutting oil based on sustainable, resource-saving mineral oil for machining steel, up to high-alloy steels. Universally applicable also for grinding gear parts. Odourless, high flash point. Supports the circular economy, is resource-saving and sustainable for the environment.	
	205 L (Drum)								
ECOCUT LCF 714	14	0.87	180	•	•	•	–	High-performance oil based on sustainable, resource-saving mineral oil with high EP addition and universally applicable for machining high-alloy steels. Universal in gear machining for hobbing, broaching and deep drilling as well as grinding. Zinc-free, low-foaming, low-odour. Supports the circular economy, is resource-saving and sustainable for the environment.	
	205 L (Drum)								
PLANTOCUT Series – Based on renewable Raw Materials									
PLANTOCUT 10 SR	10	0.86	206	•	•	•	•	Rapidly biodegradable, ester based cutting oil. Particularly suitable for operations with geometrically defined cutting edges such as turning, milling, drilling, etc. Low evaporation and low misting; H304-free.	
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)								
PLANTOCUT 22 AC	22	0.90	215	•	•	•	•		
	205 L (Drum)								
PLANTOCUT 40 SR	40	0.92	216	•	•	•	•		
 	205 L (Drum), 1000 L (IBC)								

Neat Cutting Fluids

Product name	Kin. visc. at 40 °C [mm²/s]	Density at 15 °C	Flash point [°C]	Hard metal	HSS steel	Main application areas	
Specific Application – Tool grinding							
ECOCUT FT 7 WSE	8.0	0.81	184	•	•	Grinding oil formulated on GTL base oil, for grinding of carbide tools; prevents cobalt leaching. Further application is sharpening of HSS tools. Suitable for ultra fine filter systems, free of aromatics.	
 	1000 L (IBC), Tank Truck						
ECOCUT HS	5.5	0.80	160	•	•	PAO-based machining fluid, universally applicable for the grinding and sharpening of HSS and tungsten carbide tools; low aromatic content; prevents cobalt leaching, suitable for micro filtering systems.	
  	205 L (Drum), 1000 L (IBC), Tank Truck						

Product name	Kin. visc. at 40 °C [mm²/s]	Density at 15 °C	Flash point [°C]	Steel	High- alloy steel	Alumi- nium	Copper, copper alloys	Main application areas
Specific Application – Gear Machining								
ECOCUT 628 LE	26	0.86	210	•	•	–	–	High-performance cutting oil universally applicable for all gear machining operations (shaving, hobbing, shaping, etc).
  	205 L (Drum), 1000 L (IBC), Tank Truck							
ECOCUT 720 LE	21	0.89	210	•	•	–	–	Universally applicable for gear machining and grinding. Approved by the leading grinding machine manufacturers; low misting and low evaporation; available in other viscosities on request. H 304 labeling free version is ECOCUT HFN 13 LE UNI-CLP.
 	205 L (Drum), 1000 L (IBC)							
ECOCUT HFN 13 LE UNI	13	0.85	194	•	•	•	•	
  	205 L (Drum), 1000 L (IBC), Tank Truck							
ECOCUT HSG 211 LE	11	0.84	172	•	•	•	•	High performance grinding oil for gear grinding. It provides a high metal removal rate and reduces grinding burn through special additives. Low oil mist and evaporation.
  	205 L (Drum), 1000 L (IBC), Tank Truck							
Specific Application – Spark Erosion								
ECOCUT FE	4	0.81	134	•	•	•	•	Dielectric medium, especially for roughing; free of aromatics.
 	205 L (Drum), 1000 L (IBC)							
ECOCUT 1520	2,3	0.82	101	•	•	•	•	Dielectric, can be used for roughing as well as for finishing. Despite lower viscosity high flash point >100 °C.
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)							

• = suitable; – = not suitable; (•) – Check compatibility with critical alloys

ECOCUT, *PLANTO*

Product name	Kin. visc. at 40 °C [mm²/s]	Density at 15 °C	Flash point [°C]	Steel	High- alloy steel	Alumi- nium	Copper, copper alloys	Main application areas
Specific Application – Threading								
ECOCUT 522	24	0.89	204	•	•	–	(•)	Solvent raffinate with chlorine free EP addi- tives; low misting and zinc free. Especially for the threading of stainless steels and other machining operations on high alloy materials.
	205 L (Drum)							
Specific Applications – Honing, Finishing								
ECOCUT HFN 5 LE-HC	4	0.84	136	•	(•)	•	•	Honing oil for steel and cast iron; also suitable for super finishing and high performance honing operations.
  	205 L (Drum), 1000 L (IBC), Tank Truck							
ECOCUT GBS 5	5	0.83	150	•	(•)	•	•	For grinding and honing of balls and races in the roller bearing industry.
	1000 L (IBC)							
ECOCUT FE	4	0.81	134	•	•	•	•	Metal processing oil for honing and finishing; based on white oils and free of aromatics.
 	205 L (Drum), 1000 L (IBC)							
Specific applications – Medical Engineering								
PLANTOCUT 10 SR	10	0.86	206	•	•	•	•	Rapidly biodegradable, ester based cutting oil for the use in the medical engineering. Recommended turning, milling, drilling, etc. Low evaporation and low misting; H304 free. Cytotoxicity: EN ISO 10993-1, EN ISO 10993-5, EN ISO 10993-12.
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)							
ECOCUT HFN 15 GB 1	15	0.85	180	•	•	–	•	Cutting oil for machining of high alloy, diffi- cult-to-machine materials (titanium, CoCr and nickel alloys, medical steels) used in medical engineering. Cytotoxicity: EN ISO 10993-1, EN ISO 10993-5, EN ISO 10993-12, DMQP Medical Product.
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)							
ECOCUT FT 11 MED	11	0.82	194	•	•	•	•	High performance cutting oil on GTL base oil for universal machining of high alloy steels and copper alloys. Odorless, high flash point, low evaporation, superb foaming behavior. For the machining of medical steels. Cytotoxicity: EN ISO 10993-1, EN ISO 10993-5, EN ISO 10993-12.
 	205 L (Drum), 1000 L (IBC)							
ECOCUT 7520 LE-M	17	0.86	214	•	•	–	–	High performance cutting oil for tool wear reduction and for the machining of high- alloy, difficult-to-machine materials (tita- nium, CoCr and nickel alloys, medical steels) used in medical engineering. Cytotoxicity: EN ISO 10993-1, EN ISO 10993-5, EN ISO 10993-12.
 	205 L (Drum), 1000 L (IBC)							

Neat Cutting Fluids

ECOCUT

Product name	Kin. visc. at 40 °C [mm ² /s]	Density at 15 °C	Flash point [°C]	Steel	High- alloy steel	Alumi- nium	Copper, copper alloys	Main application areas
Specific Application – Deep Hole Drilling								
ECOCUT FT 11 HP	11	0.82	194	•	•	•	•	High-performance cutting oil on GTL base oil for universal machining of high-alloy steels up to copper alloys. Odorless, high flash point, low evaporation, excellent foaming behavior.
 	205 L (Drum), 1000 L (IBC)							
ECOCUT 618	18	0.87	200	•	•	(•)	–	Mineral oil-based, low-oil-mist machining oil with EP and AW additives for deep-hole drilling, especially hard-to-machine steel materials; also suitable for valve drilling.
 	205 L (Drum), 1000 L (IBC)							

Service Additives for Neat Cutting Fluids

Product name	Kin. visc. at 40 °C [mm ² /s]	Copper active	Application concentration [%]	Main application areas
Adjusting Concentrate for Cutting Oils				
ECOCUT PLUS KWU	36	•	1 - 100	Adjusting concentrate to improve cutting performance, tool life and surface finish.
	20 L (Canister)			
ECOCUT PLUS 800	27	•	1 - 100	Adjusting concentrate to improve cutting performance, tool life and surface finish; especially for the ECOCUT 800 Series.
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)			
ECOCUT PLUS HK	32	–	1 - 100	Special adjusting concentrate for the PLANTOCUT Series when copper-inactivity is necessary.
	1000 L (IBC)			

**ANTIFOAM Defoamer for cutting oils –
Products available on request**

Quenching Fluids

THERMISOL



Product name	Kin. Visc. at 40 °C [mm²/s]	Density at 15 °C [g/ml]	Flash- point [°C]	Temperature range bath temperature [°C]	Main application area
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Quenching Oils based on Mineral Oil

THERMISOL QB 32	31	0.87	231	50 – 90	Quenching oils based on mineral oil are usually conventional solvates containing a relatively low level of additives. These oils are generally used to quench components made of high-alloy materials and with simple geometries. They are mainly used for the heat treatment of distortion-resistant components.
  	205 L (Drum), 1000 L (IBC), Tank Truck				
THERMISOL QB 46	44	0.87	230	50 – 100	
 	205 L (Drum), Tank Truck				

High-performance Quenching Oils based on Mineral Oil

THERMISOL QH 10	12	0.85	178	50 – 80	High performance quenching oils usually contain high levels of additives and special agents which accelerate component wetting. High performance quenching oils are normally based on conventional solvates. They are widely used because optimized wetting behaviour makes them suitable for warp-prone components. Depending on the flash point, these quenching oils can also be used as hot bath and martempering oils.
 	205 L (Drum), 1000 L (IBC)				
THERMISOL QH 40	45	0.86	223	50 – 110 (max. 150)	
	205 L (Drum)				

Quenching Fluids

Product name	Kin. Visc. at 40 °C [mm²/s]	Density at 15 °C [g/ml]	Flash- point [°C]	Temperature range bath temperature [°C]	Main application area
High-performance Quenching Oils based on Hydrocrack Oil					
THERMISOL QH 10 MC 	12 1000 L (IBC)	0.84	172	50 – 80	High performance quenchants based on high-quality, low evaporation and low-aromatic hydrocracked oils. MC - the key is a special manufacturing process in which natural mineral oil is converted by hydrocracking, i.e. under high pressure and high temperatures in the presence of H2 (hydrogen). This creates a more cost-effective base oil which is comparable to synthetic oils. This base oil together with high-quality additives combines the oxidation stability and the optimum wetting properties of high-performance quenching oils with the thermal stability and extremely low evaporation of hydrocracked oils.
THERMISOL QH 30 MC  	26 205 L (Drum), 1000 L (IBC)	0.84	220	50 – 100 (max. 150)	
THERMISOL QH 35 MC 	37 1000 L (IBC)	0.85	236	40 – 100 (max. 150)	
Synthetic High-performance Quenching Oils					
THERMISOL QHY 10 	11 205 L (Drum)	0.87	204	50 – 130	The use of these quenching oils based on synthetic esters is particularly recommended for highly warp-prone components. Apart from their sustainability credentials, these high-performance quenching oils offer a number of other advantages. Synthetic high-performance quenching oils have significantly better wetting properties than their conventional counterparts. These excellent wetting properties ensure that the vapour phase over the whole surface of the component being treated collapses rapidly. This almost simultaneous wetting of the entire component surface significantly reduces the temperature gradients created during quenching and thus ultimately the uneven shape changes known as warping. Depending on the flash point, these quenching oils can also be used as hot bath and martempering oils.
THERMISOL QHY 150 	145 200 L (Drum)	0.93	312	60 – 260	

THERMISOL

Product name	Main application	Quenching intensity	Materials	Properties
Water-miscible Quenchants				
THERMISOL PGI 2010 	Quenching for induction and flame hardening 205 L (Drum)	Very high	Unalloyed steel	Especially for high corrosion protection requirements.
THERMISOL QZS 400   	Quenching for induction and flame hardening 20 L (Canister), 205 L (Drum), 1000 L (IBC)	Very high	Unalloyed steel Low alloyed steel	Limited control of the quenching process through the concentration is possible. Provides increased bath life. Reduces foaming.
THERMISOL QZS 700 K-FF 	Quenching for induction and flame hardening. Also suitable for immersion quenching 1000 L (IBC)	High	Unalloyed steel Low alloyed steel Higher alloyed steel	Controlled quenching behaviour possible through variation of concentration. Provides increased bath life. Offers a particularly good dissolving capacity. Reduces foaming. Especially for the highest corrosion protection requirements.
THERMISOL QZS 400-WB  	Quenching for induction and flame hardening. Also suitable for immersion quenching 205 L (Drum), 1000 L (IBC)	High	Unalloyed steel Low alloyed steel Higher alloyed steel	Controlled quenching behaviour possible through variation of concentration. Provides increased bath life. Offers a particularly good dissolving capacity. Reduces foaming. Especially for the highest corrosion protection requirements. Protects copper inductors in induction hardening systems. Machine manufacturer approval: EFD Induction
THERMISOL PVM 4000  	Immersion quenching of single batches 205 L (Drum), 1000 L (IBC)	Medium	Unalloyed steel Low alloyed steel High alloyed steel	Mild to particularly mild quenching processes can be achieved. Can be used as a substitute for low-viscosity hardening oils.
THERMISOL QZS 550 CPO 	Immersion quenching of single batches 205 L (Drum)	Low	Unalloyed steel Low alloyed steel High alloyed steel	Mild to particularly mild quenching processes can be achieved. Can be used as a substitute for low-viscosity hardening oils. Especially for high corrosion protection requirements.

Properties water-miscible quenching fluids THERMISOL series

General characteristics	QZS 400 and 700 series	QZS 550 and PVM series
- Controlled quenching behaviour possible through variation of concentration - There is no fire hazard in the tank - No oil steam will be released - Free of Boron, Formaldehyde Phenol and Isothiazolinone	- Severe quenching characteristic - Smooth transition from vapour phase to polymer film - Good for rinsing or immersion after induction heat treatment or flame hardening	- Oil-like quenching characteristics possible - Very different quenching intensities can be set with the variation of concentration - Quenching of high-alloy materials up to tool steel possible - Particularly recommended for large and crack-sensitive components

Cleaner



Product name	Function	Comments	Materials	Corrosion protection, chip/filter test 0/0 at x% in y °dH	pH (2%), if applicable	Concentration range in %	Temperature range in °C	Spray pressure in bar to app.	Density at 15 °C in kg/m³
Neutral Cleaner									
RENOCLEAN MSO 3011	Neutral cleaner for spray and high-pressure cleaning, high-pressure deburring	Highly demulsifying, almost foam-free above 25 °C, salt-free. PSA-approval worldwide: MABEC-code Z 000 546790	Fe, Al, Cu, Ms, Plastics ¹	Temporarily, '2% / in DI-water	9.2 ± 0.4 at 3.5%	3 (1 - 5)	50 (20 - 80)	600	1036 ± 15
   20 L (Canister), 205 L (Drum), 1000 L (IBC)									
RENOCLEAN MTO 3002	Neutral cleaner and corrosion protection "All-in-One" for spray, pressure flood, high pressure cleaning and deburring	Very low residue formation, very good temporary corrosion protection, low-foaming application from 20 °C pressure-dependent, salt-free	Fe, Cu, Ms, (Al, Mg) ¹	Temporarily, '2% / 10 °dH	9.4 ± 0.5	3 (2 - 5)	60 (20 - 80)	500 (≥ 50 °C)	1078 ± 20
  20 L (Canister), 205 L (Drum)									
RENOCLEAN MSO 3012	Medium alkaline cleaner for high pressure cleaning and deburring up to approx. 500 bars	Free of Mono- and Triethanolamine	Fe, Al, Zn, Cu, Ms, Mg ¹ , Plastics ¹	Temporarily, '2% / in DI water	9.4 ± 0.5	2 (1 - 5)	50 (420 - 80)	500	1027 ± 15
 205 L (Drum)									

Cleaner

Product name	Function	Comments	Materials	Corrosion protection, chip/filter test 0/0 at x% in y °dH	pH (2%), if applicable	Concentration range in %	Temperature range in °C	Spray pressure in bar to app.	Density at 15 °C in kg/m³
Neutral Cleaner									
RENOCLEAN VR 1021	Neutral cleaner for spray application	Residue formation very low, usable before heat treatment, salt-free	Fe, Mg, (Al, Cu, Ms) ¹	Temporarily, '2% / 10 °dH	10.2 ± 0.3	2 (1 - 5)	65 (30 - 80)	20	1040 ± 15
	20 L (Canister), 205 L (Drum)								
RENOCLEAN C 20 K 1427	Neutral cleaner with very good corrosion protection for ferrous metals, spray application	Low residue formation, usable before heat treatment, salt-free VW-Approval A29 2863	Fe, Mg ¹	Temporarily, '1.5% / 10 °dH	10.2 ± 0.4	2 (1 - 5)	65 (40 - 80)	15	1044 ± 15
	205 L (Drum)								

RENOCLEAN

Product name	Function	Comments	Materials	Corrosion protection, chip/filter test 0/0 at x% in y °dH	pH (2%), if applicable	Concentration range in %	Temperature range in °C	Spray pressure in bar to app.	Density at 15 °C in kg/m³
1-Component Products									
RENOCLEAN VR 2950	Spray cleaner for ferrous metals	Spray cleaner for battery components	Fe	Temporarily, '2% / 10 °dH	9.9 ± 0.5 in 10 ° DIN water	2 (1 - 4)	60 (30 - 80)	20	1060 ± 15
	1000 L (IBC)								
RENOCLEAN MTA 3003	Multi-metal capable spray and immersion cleaner, suitable for ultrasonic cleaning	Universally applicable, e.g. for non-cutting formed parts or for engine reconditioning	Fe, Al, (Zn, Cu, Ms, Plastics) ¹	Temporarily, '3% / 10 °dH	9.7 ± 0.4 (3%)	3 (2 - 7)	65 (40 - 80)	15	1120 ± 15
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)								
RENOCLEAN MSA 3001	Multi-metal capable spray cleaner	Universally applicable, limited suitability for immersion, low-foaming from approx. 40 °C	Fe, Al, Cu, Ms, (Zn, Plastics) ¹	Temporarily, '2.5% / 10 °dH	9.7 ± 0.4 (3%)	3 (2 - 7)	60 (40 - 80)	15	1074 ± 15
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)								
RENOCLEAN MDA 4201	Multi-metal capable emulsifying cleaner for immersion, ultrasonic and manual use	Alkaline silicate containing cleaner with very good wetting capacity, supports clean, spotless drying, also suitable for manual and floor cleaning from 20 °C	Fe, Al, Cu, Ms, (Zn, Plastics) ¹	–	10.7 ± 0.5	4 (2 - 7)	65 (20 - 80)	–	1058 ± 20
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)								
RENOCLEAN WSA 4002	Cleaner for spray, immersion, ultrasonic and manual application	For heavily soiled parts and aggregates (e.g. railway, engine and chassis parts)	Fe, Al, Cu, Ms, (Zn, Mg, Plastics) ¹	Temporarily, '2.5% / 20 °dH	12.0 ± 0.5 (2.5%)	3 (2 - 7)	60 (30 - 80)	15	1092 ± 15
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)								
RENOCLEAN FDC 4001	Cleaner for immersion, ultrasonic and manual application in medical technology	Supports stain-free drying. Silicate-free. Non-skin irritating.	Titan, Fe, Al, (Cu, Ms, Mg, Plastics) ¹	–	12.1 ± 0.5	5 (2 - 33)	65 (20 - 80)	–	1090 ± 15
	20 L (Canister)								
RENOCLEAN MDA 4002	Immersion and ultrasonic cleaner, sprayable	For cleaning of parts, e.g.: with difficult to remove forming lubricants. Sprayable up to approx. 8 bar (depending on the equipment)	Fe, Zn, Mg, (Al, Cu, Ms) ¹	Temporarily, '2.5 % / 20 °dH	12.2 ± 0.3	4 (1 - 7)	65 (40 - 80)	8	1145 ± 15
	20 L (Canister)								



RENOCLEAN

Product name	Function	Comments	Materials	Corrosion protection, chip/filter test 0/0 at x% in y °dH	pH (2%), if applicable	Concentration range in %	Temperature range in °C	Spray pressure in bar to app.	Density at 15 °C in kg/m³
Builder Components									
RENOCLEAN MTA 2001	Neutral, for immersion, pressure flood, flood and spray application	Borate, silicate and surfactant free, micro-filterable, *	Al, Cu, Ms, Plastics, Zn ¹	–	7.7 ± 0.8	4 (2 - 8)	65 (20 - 80)	Applicable spraying pressure according to the surfactant component used!	1335 ± 25
	20 L (Canister)								
RENOCLEAN MTA 4001	Medium alkaline, for immersion, pressure flood, flood and spray application	Borate, silicate and surfactant free, micro-filterable, *	Fe, Plastics, (Al, Zn, Cu, Ms, Mg) ¹	–	10.0 ± 0.6	4 (2 - 8)	65 (20 - 80)		1579 ± 25
	20 L (Canister)								
RENOCLEAN FTA 4002	Highly alkaline, for dipping, pressure flooding, flooding and spraying	Borate, silicate and surfactant free, micro-filterable, *	Fe, Mg, Plastics ¹	–	12.5 ± 0.5	4 (2 - 8)	65 (20 - 80)		1435 ± 20
 	20 L (Canister), 205 L (Drum)								
RENOCLEAN ENTFETTER 39	Highly alkaline, silicate, for dipping, pressure flooding, flooding and spraying	Borate-free	Fe, Mg, Al, Cu, brass, plastic, Zn ¹	–	12.5 ± 0.5	5 (1 - 20)	65 (20 - 80)		1370 ± 15
	700 L (IBC)								
RENOCLEAN FTA 4001	Highly alkaline, for immersion, pressure flooding, ultrasonic and spray cleaning, electrolytic degreasing, dephosphating	Borate-free, micro-filterable, *	Fe, Mg, (Cu, Ms, Plastics) ¹	–	12.9 ± 0.6 (1 %)	5 (2 - 20)	65 (20 - 85)		1433 ± 25
	20 L (Canister)								
RENOCLEAN VR 3222	With corrosion protection, recyclable, for immersion, pressure flood, flood and spray application	Free of nitrite, borate, silicate and surfactants, micro-filterable, suitable for high pressure, free of salt,*	All materials ¹	Temporarily, '3.5% / 10 °dH	8.0 ± 0.4 (3.5%)	2 (0.5 - 5)	60 (20 - 80)		1079 ± 15
 	20 L (Canister), 205 L (Drum)								
RENOCLEAN VR 2729 K	With corrosion protection, recyclable, salt-free, for immersion, pressure flood, flood and spray application	Free of nitrite, borate, silicate and surfactants, micro-filterable, *. Has a corrosion-protecting effect in the vapour phase. Salt-free.	Fe, Mg, Plastics ¹	Temporarily, '3% / 10 °dH	10.8 ± 0.5 (3 %)	2 (0.5 - 5)	60 (20 - 80)		1035 ± 15
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)								

Fe – steel, iron, cast iron and stainless steel

1 – to check first

* – Observe product information - use with appropriate surfactant components

Cleaner

Product name	Function	Comments	Ma- terials	Corrosion protection, chip/filter test 0/0 at x% in y °dH	pH (2%), if appli- cable	Concen- tration range in %	Tem- pera- ture range in °C	Spray pressure in bar to app.	Density at 15 °C in kg/m³
Surfactant Components									
RENOCLEAN VR 1500	Cleaning booster for spray cleaning, neutral cleaner	As a neutral cleaner free from corrosion protec- tion components	All ma- terials ¹	–	8.5 ± 0.5	1 (0.3 - 5)	65 (30 - 80)	25	1047 ± 15
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)								
RENOCLEAN MTT 2003	Cleaning booster for immersion, pressure flood, ultrasonic and spray cleaning	Micro-filterable, strongly dependent on membrane and working parame- ters! Spraying at least 40 °C	All ma- terials ¹	–	7.9 ± 1.2 (1%)	1 (0.4 - 5)	65 (20 - 80)	15 (25 above 65 °C)	1020 ± 20
	20 L (Canister)								
RENOCLEAN TENSID 161	Cleaning booster for immersion, ultrasonic and pressure flood cleaning	Micro-filterable, strongly dependent on membrane and working parame- ters! *	All ma- terials ¹	–	9.1 ± 0.6	0.4 (0.1 - 1)	65 (20 - 80)	2 (above 60 °C)	1025 ± 20
 	20 L (Canister), 205 L (Drum)								

Cleaner

Product name	Function	Comments	Ma- terials	Evapora- tion number approx. Ether = 1	Flash point in °C	Boiling range in °C	Density at 15 °C in kg/m³
Solvents							
RENOCLEAN MTS 7001	Cleaner based on modified alcohols	Distillable. Especially designed for closed cleaning systems!	All materials, plastics ¹	125	≥ 61	165 - 175	880 ± 10
	205 L (Drum)						
RENOCLEAN MVS 8015	Hydrocarbon cleaner based on isoparaffin, aromatic-free	Narrow boiling cut, fast drying, distillable. Especially designed for closed cleaning systems!	All materials, plastics ¹	93	≥ 56	179 - 197	760 ± 10
	205 L (Drum)						
RENOCLEAN MVS 8016	Hydrocarbon cleaner based on isoparaffin, aromatic-free	Narrow boiling cut, fast drying, distillable. Especially designed for closed cleaning systems!	All materials, plastics ¹	115	≥ 62	184 - 206	763 ± 10
	205 L (Drum)						
RENOCLEAN MVS 9004	VOC-compliant, aromatics-free hydrocarbon cleaner	Universal application, slowly evaporating. Simple application, e.g. for the removal of car wax preservative. VW-Approval A29 2819	All materials, plastics ¹	900	≥ 86	217 - 255	815 ± 20
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)						
RENOCLEAN MVS 9014	VOC- and aromatic-free hydrocarbon cleaner with corrosion protection	VOC compliant. Universal application, good corrosion protection due to very thin oil film. For solvent plants without distillation	All materials, plastics ¹	900	≥ 86	217 - 255	814 ± 20
	1000 L (IBC)						
RENOCLEAN MVS 8201	Low-aromatic hydrocarbon cleaner, environmentally friendly, demulsifying	Universal application in industry and trade, applicable with steam jet, good corrosion protection properties. Free of corrosive and caustic substances	All materials, plastics ¹	120	≥ 61	180 - 330	770 ± 20
	60 L (Drum)						
RENOCLEAN MVS 8010	Hydrocarbon cleaner based on isoparaffin, aromatic-free	Gentle cleaning, for precision mechanics and electronic parts cleaning, not irritating to skin. Easy application, for solvent plants without permanent distillation	All materials, plastics ¹	130	≥ 61	185 - 210	765 ± 10
  	20 L (Canister), 60 L (Drum), 205 L (Drum), 1000 L (IBC)						
RENOCLEAN MVS 7008	Hydrocarbon cleaner, aromatics-free	Fine cleaning, fast drying. Easy application, for solvent plants without permanent distillation	All materials, plastics ¹	200	≥ 61	160 - 245	790 ± 25
 	60 L (Drum), 205 L (Drum), 1000 L (IBC)						
RENOCLEAN ECO AIR	Washing oil for air purification devices (ex RENOCLEAN MVS 9005 / PENTOWASH 30!)	Washing oil for air cleaning systems in aluminium rolling mills, distillable, recyclable	All materials, plastics ¹	–	≥ 220	–	837 ± 20
   	20 L (Canister), 205 L (Drum), 1000 L (IBC), Tank Truck						

Fe – steel, iron, cast iron and stainless steel

1 – to check first

RENOCLEAN

Product name	Function	Comments	Ma- terials	Corrosion protection, chip/filter test 0/0 at x% in y °dH	pH (2%), if appli- cable	Concen- tration range in %	Tem- pera- ture range in °C	Spray pressure in bar to app.	Density at 15 °C in kg/m³
Special Products									
RENOCLEAN FXM 3014	Synthetic weld release agent with corrosion protection	Ready to use solution! Forms a coherent moist film that prevents the adhesion of weld- ing beads	–	Temporarily, '100%	8.7 ± 0.5 (100%)	100	Room tem- perature (15 - 30)	–	1010 ± 15
	20 L (Canister)								
RENOCLEAN GXM 3001	Defoamer, foam regulating addi- tive especially for cleaning solutions	Immediate, long- lasting defoaming and deaerating effect	–	–	8.8 ± 1.2 (100%)	0.05 (0.01 - 0.25)	–	–	998 ± 15
	5 L (Canister)								
RENOCLEAN GXA 3004	Floor, plant and hall cleaners	For all manual and mechanical appli- cations, odourless, especially suitable for floor cleaning equipment	All ma- terials¹	–	9.1 ± 0.6 (100%)	3 (1 - 20)	20 (20 - 90)	–	1047 ± 15
 	20 L (Canister), 1000 L (IBC)								
RENOCLEAN AKTIV DA	Demulsifier for separating emul- sified oil	Demulsifier with defoaming effect, equipment for removing demulsi- fied oil is necessary (oil separator etc.)	–	–	9.3 ± 0.7 (100%)	0.2 (0.05 - 1.0)	–	–	987 ± 10
	20 L (Canister)								
RENOCLEAN SPEZIAL 2000	Emulsifying uni- versal cleaner for immersion, ultrasonic and manual clea- ning of com- mercial vehicles, tarpaulins, halls and workshops	For all manual clea- ning, for immersi- on, suitable for steam jet and floor clea- ning equipment. Specifications - FORD Tox- Number 150602 (2014) - Federal-Mogul Nürnberg GmbH, Release number R041 (2014)	Fe, Mg, (Al, Cu, Ms, Lacke, Pla- stics)¹	–	10.9 ± 0.4 at 3%	5 (1 - 20)	35 (20 - 80)	–	1045 ± 20
  	5 L (Canister), 20 L (Canister), 205 L (Drum), 1000 L (IBC)								
RENOCLEAN GXA 4014	Universal cleaner for floors, halls and vehicle fleet	For mechanical and manual cleaning of workshop, vehicle fleet, etc. Contains lime scent	Fe, Mg, (Al, Cu, Ms, Lacke, Pla- stics)¹	–	11.7 ± 0.5 (1%)	3 (1 - 20)	20 (20 - 80)	–	1036 ± 15
	20 L (Canister)								

Cleaner

Product name	Function	Comments	Materials	Flash point in °C	pH (2%), if applicable	Concentration range in %	Temperature range in °C	Spray pressure in bar to app.	Density at 15 °C in kg/m³
Assembly Aids									
RENOCLEAN GXS 9055	Assembly aids, ready for use, synthetic (ex PENTOSIN MONTAGE-FLUID 55)	Aid for the assembly of various components. Compatible with all common lubricants and corrosion protection agents based on mineral, HC synthetic or synthetic oil as well as fuels	—	≥ 150	—	100	Room temperature (15 - 30)	—	897 ± 10
	20 L (Canister)								
RENOCLEAN GXS 9067	Assembly aid, ready for use, UV additive (ex PENTOSIN MONTAGE-FLUID 67UVA)	Aids for assembly and short-term transport of brake units and their components. Compatible with all common brake fluids, contains UV indicator.	—	≥ 200	—	100	Room temperature (15 - 30)	—	992 ± 10
	60 L (Drum)								
RENOCLEAN GXS 9094	Assembly aid, containing corrosion protection, synthetic (ex PENTOSIN MONTAGE-FLUID 94)	Aids for assembly and short-term transport of brake components and brake systems. Compatible with all common brake fluids	—	≥ 210	—	100	Room temperature (15 - 30)	—	995 ± 10
	205 L (Drum)								

Cleaner

Product name	Function	Comments	Materials	Corrosion protection, chip/filter test 0/0 at x% in y °dH	pH (2%), if applicable	Concentration range in %	Temperature range in °C	Spray pressure in bar to app.	Density at 15 °C in kg/m³
Corrosion Protection									
RENOCLEAN MTE 3001	Emulsion cleaner, water miscible corrosion protection concentrate	Emulsion cleaner and corrosion protection emulsion for immersion, flush and spray application. Free of barium and boron compounds, contains no monoethanolamine	All materials ¹	Temporarily, '3% / 10 °dH	8.8 ± 0.5	4 (3 - 20)	20 (20 - 60)	5	995 ± 20
	205 L (Drum)								
RENOCLEAN MTE 3201	Emulsion cleaner, water-miscible anti-corrosion concentrate	Emulsion cleaner and corrosion protection emulsion for immersion, splash and spray application. Free of barium and boron compounds, contains no monoethanolamine.	Fe, Al, Cu, Ms, (Zn) ¹	Temporarily, '5% / 10 °dH	9.6 ± 0.5 (3%)	4 (3 - 20)	50 (20 - 70)	6	917 ± 20
	20 L (Canister)								

RENOCLEAN



Product name	Function	Application	Comments
Skin Protection Prior to Work			
RENOCLEAN HAND PROTECT MULTI	Silicone-free, fingerprint-free, breathable and universally applicable skin protection cream	Before working with alternating substances (water-soluble and water-insoluble contaminants and irritants)	Forms a thin, invisible and protective film on the skin
🔧 🔧	20 x 100 ml (Tube), 6 x 1000 ml (Pouch Bottle) – RENOCLEAN DONA 2000K Dispenser (for pouch bottle, 1000ml and 2000ml)		
Skin Cleansing			
RENOCLEAN HAND WASH MILD	Mild, soap-free, unscented skin cleansing gel	For the cleansing of highly stressed and sensitive skin	Especially suitable where frequent hand washing is necessary
🔧	25 x 250 ml (Bottle), 6 x 2000 ml (Pouch Bottle) – RENOCLEAN DONA 2000K Dispenser (for pouch bottle, 1000ml and 2000ml)		
RENOCLEAN HAND WASH INTENSIVE	Hand cleaner with abrasive particles for heaviest soiling	Excellent for cleaning very dirty hands in repair workshops, mechanical engineering etc.	With natural scrubbing agents from corncobs, with a pleasant orange scent. pH-neutral and with conditioning substances. Free of plastic scrubbers
🔧	25 x 250 ml (Bottle), 6 x 2000 ml (Pouch Bottle) – RENOCLEAN DONA 2000K Dispenser (for pouch bottle, 1000ml and 2000ml)		
Skin Care			
RENOCLEAN HAND CARE	Silicone-free skin care cream	After work, it is ideal as a care cream for hands whose natural protective barrier is damaged during work	Contains caring vegetable oils, beeswax and moisture regulating substances
🔧 🔧	25 x 250 ml (Bottle), 6 x 2000 ml (Pouch Bottle) – RENOCLEAN DONA 2000K Dispenser (for pouch bottle, 1000ml and 2000ml)		

Corrosion Preventives

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ANTICORIT

Product name	Description	Kin. visc. at 40 °C [mm²/s] DIN 51562	Density at 15 °C [KG/m³]	Consumption [l/m²]	Film weight [g/m²]	Shed storage [Mon.]	Hall storage [Mon.]	FP [°C]	Thixotropic	VCI	Lubricating properties
Corrosion Protection Oils											
ANTICORIT BGI 15	Corrosion protection oil with VCI; medium viscosity	14	865	0.006	5	3-6	9-15	155	–	•	•
  	205 L (Drum), 1000 L (IBC), Tank Truck										
ANTICORIT BGI 21	Corrosion protection oil with VCI	22	902	0.006	6	3-6	9-15	150	–	•	•
  	205 L (Drum), 1000 L (IBC), Tank Truck										
ANTICORIT LBO 160 TT	Corrosion protection oil with very high viscosity, suitable for use in low temperature applications	160	920	0.038	35	3-6	6-9	150	–	–	•
	205 L (Drum)										
ANTICORIT RPS 30 N	Corrosion protection oil with good environmental and work safety properties, designed for mill application	23	840	0.011	9	3-6	6-9	230	–	–	–
 	1000 L (IBC), Tank Truck										
ANTICORIT RP 30 NT	Corrosion protection oil designed for steel mill application	30	889	0.010	9	3-6	6-9	172	–	–	–
 	205 L (Drum), 1000 L (IBC)										
ANTICORIT RP 4107 A	Mid-viscous, non thixotropic modification of ANTICORIT RP 4107 S	15	870	0.010	9	3-6	6-9	130	–	–	–
   	20 L (Canister), 205 L (Drum), 1000 L (IBC), Tank Truck										
ANTICORIT RP 4107 LV NT	Low-viscous, non thixotropic modification of ANTICORIT RP 4107 S	12	864	0.007	6	3-6	6-9	150	–	–	–
	205 L (Drum)										
ANTICORIT PL 3802 39 LV 8	Low-viscous blank washing oil with advanced lubrication, non thixotropic	8	890	0.002	2	3-6	6-9	110	–	–	•
 	205 L (Drum), 1000 L (IBC)										
ANTICORIT PL 3802 39 NT	Non thixotropic modification of ANTICORIT PL 3802 39 S	26	880	0.009	8	3-6	6-9	n/a	–	–	•
	205 L (Drum)										
ANTICORIT PL 39 LV 8	Low-viscous blank washing oil	8	880	0.002	2	3-6	6-9	116	–	–	•
  	205 L (Drum), 1000 L (IBC), Tank Truck										

Corrosion Preventives

Product name	Description	Kin. visc. at 40 °C [mm²/s] DIN 51562	Density at 15 °C [KG/m³]	Consumption [l/m²]	Film weight [g/m²]	Shed storage [Mon.]	Hall storage [Mon.]	FP [°C]	Thixotropic	VCI	Lubricating properties
Corrosion Protection Oils											
ANTICORIT PL 39 LV 18	Mid-viscous blank washing oil	17	900	0.008	7	3-6	6-9	158	–	–	•
	205 L (Drum)										
Oily Corrosion Preventative Concentrates											
ANTICORIT RPC 5000	Corrosion protection concentrate, successor of ANTICORIT OHK	85	887	Depends on conc.	Depends on conc.	Depends on conc.	Depends on conc.	248	–	–	–
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)										
ANTICORIT MPC 5000	Corrosion protection concentrate, advanced corrosion protection and lubrication performance, compatible with chlorinated solvents	90	890	Depends on conc.	Depends on conc.	Depends on conc.	Depends on conc.	240	–	–	–
   	20 L (Canister), 205 L (Drum), 1000 L (IBC), Tank Truck										
ANTICORIT 03 W C	High-viscous, thixotropic corrosion protection concentrate; suitable for bearings	160	912	Depends on conc.	Depends on conc.	Depends on conc.	Depends on conc.	150	•	–	–
 	20 L (Canister), 205 L (Drum)										

ANTICORIT

Product name	Description	Kin. visc. at 40 °C [mm²/s] DIN 51562	Density at 15 °C [KG/m³]	Consumption [l/m²]	Film weight [g/m²]	Shed storage [Mon.]	Hall storage [Mon.]	FP [°C]	Thixotropic	VCI	Optimized lubricating properties
Thixotropic Corrosion Protection Oils											
ANTICORIT BGO 15 X	Thixotropic corrosion protection oil with very good corrosion protection and lubrication properties, suitable for bearings	14	860	0.006	5	12-24	12-36	130	•	–	•
 	205 L (Drum), 1000 L (IBC)										
ANTICORIT TX 11	Thixotropic corrosion protection oil with very good lubrication properties; suitable for bearings	40	883	0.034	30 at 60 °C	6-12	12-24	160	•	–	•
 	205 L (Drum), Tank Truck										
ANTICORIT TW 16	High-viscous corrosion protection oil for hot applications	32 at 50 °C	883	0.012	11 at 85 °C	6-12	12-24	170	•	–	–
 	205 L (Drum), Tank Truck										
ANTICORIT RP 4107 S	Thixotropic corrosion protection oil for still mill application on body-in-white strips, meets VDA 230-213	35	887	0.012	11	6-12	12-20	210	•	–	–
  	205 L (Drum), 1000 L (IBC), Tank Truck										
ANTICORIT RP 4107 LV	Low-viscous modification of ANTICORIT RP 4107 S, meets VDA 230-213	12	865	0.002	2	4-8	8-16	150	•	–	–
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)										
ANTICORIT PL 3802 39 S	First generation thixotropic prelube, meets VDA 230-213	60	910	0.012	11	6-12	12-20	180	•	–	•
  	205 L (Drum), 1000 L (IBC), Tank Truck										
ANTICORIT PLS 100 T	Second generation thixotropic prelube, meets VDA 230-213	100	910	0.012	11	6-12	12-20	180	•	–	–
 	205 L (Drum), 1000 L (IBC)										
ANTICORIT PL 3802 39 LV	Low-viscous modification of ANTICORIT PL 3802 39 S, suitable as blank washing oil, meets VDA 230-213	15	891	0.007	6	4-8	8-16	150	•	–	–
 	205 L (Drum), 1000 L (IBC)										
ANTICORIT PL 39 SX	Hotmelt for mill application, meets VDA 230-213	20 at 60 °C	895	0.001	1	6-12	12-20	175	•	–	•
	205 L (Drum)										

Corrosion Preventives

Product name	Description	Kin. visc. at 40 °C [mm²/s] DIN 51562	Density at 15 °C [KG/m³]	Consumption [l/m²]	Film weight [g/m²]	Shed storage [Mon.]	Hall storage [Mon.]	FP [°C]	Thixotropic	VCI	Optimized lubricating properties
Mineral Oil-free Corrosion Protection Products											
ANTICORIT EB 1 	Ester based corrosion protection oil for mill application, suitable for embalage sheets 205 L (Drum)	17	951	–	0.3	–	1-3	175	–	–	•
ANTICORIT BML 3   	Corrosion protection based on polyglycol, suitable for brake components 20 L (Canister), 205 L (Drum), 1000 L (IBC)	35	985	–	–	1-3	3-6	200	–	–	–
ANTICORIT SYNTH 	Fully synthetic, high viscous multipurpose oil, good lubrication properties 20 L (Canister)	102	834	–	–	3-6	6-12	150	–	–	•
Solvent based Corrosion Protection Products											
ANTICORIT RPS 6201 	Solvent based corrosion protection oil, 20% evaporation residue, D40 solvent 205 L (Drum)	2.2 at 20 °C	800	0.013	2	6-9	12-18	>40	–	–	–
ANTICORIT RPS 7201 	Solvent based corrosion protection oil, 20% evaporation residue, D60 solvent 205 L (Drum)	3.3 at 20 °C	810	0.012	2	6-9	12-18	>60	–	–	–
ANTICORIT RPS 7601  	Solvent based corrosion protection oil, 60% evaporation residue, D60 solvent 20 L (Canister), 205 L (Drum)	16.5 at 20 °C	840	0.010	5	9-12	18-24	>60	–	–	–
ANTICORIT 04 W 2 	Pre-diluted corrosion protection oil, 75% evaporation residue, isoparaffin, suitable for bearings 205 L (Drum)	32 at 20 °C	906	Depends on conc.	Depends on conc.	6-12	12-20	>60	–	–	–
ANTICORIT 04 W 2 VOC kon. 	Pre-diluted corrosion protection oil, 75% evaporation residue, VOC-free according to 31. BlmSchV, suitable for bearings 205 L (Drum)	47 at 20 °C	920	Depends on conc.	Depends on conc.	6-12	12-20	>90	–	–	–

ANTICORIT

Product name	Description	Kin. visc. at 40 °C [mm²/s] DIN 51562	Density at 15 °C [KG/m³]	Consumption [l/m²]	Film weight [g/m²]	Shed storage [Mon.]	Hall storage [Mon.]	FP [°C]	Thixotropic	VCI	Optimized lubricating properties
Water Displacing Corrosion Protection Products											
ANTICORIT DFO 6101	Dewatering fluid, leaving a thin, oily protection layer	1.8 at 20 °C	795	0.010	0.8	3-6	6-12	>40	–	–	–
	205 L (Drum)										
ANTICORIT DFO 6301	Dewatering fluid, leaving a thick, oily protection layer	2.6 at 20 °C	821	0.010	2	6-12	12-24	>40	–	–	–
 	20 L (Canister), 205 L (Drum)										
ANTICORIT DFO 8101	Dewatering fluid, leaving a thin, oily protection layer, iso-paraffin	2.4 at 20 °C	780	0.013	1	3-6	6-12	>60	–	–	–
 	20 L (Canister), 205 L (Drum)										
ANTICORIT DFO 8301	Dewatering fluid, leaving a thick, oily protection layer, iso-paraffin	4 at 20 °C	800	0.013	2.5	6-12	12-24	>60	–	–	–
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)										
ANTICORIT DFO 9101	Dewatering fluid, leaving a thin, oily protection layer, VOC-free acc. to 31. BlmSchV	4.4 at 20 °C	820	0.012	1	3-6	6-12	>90	–	–	–
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)										
ANTICORIT DFO 9301	Dewatering fluid, leaving a thick, oily protection layer, VOC-free acc. to 31. BlmSchV	7.2 at 20 °C	835	0.012	2.5	6-12	12-24	>90	–	–	–
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)										
ANTICORIT DFO 9401	Dewatering fluid, leaving a thick, oily protection layer, VOC free according to 31. BlmSchV, no H304	10.9	865	0.012	2.5	6-12	12-24	>90	–	–	–
 	20 L (Canister), 205 L (Drum)										
ANTICORIT DFW 6101	Dewatering fluid, leaving a thin, waxy protection layer	1.6 at 20 °C	795	0.013	1	3-6	6-12	>40	•	–	–
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)										
ANTICORIT DFW 6301	Dewatering fluid, leaving a thick, soft waxy protection layer	3.7 at 20 °C	813	0.010	2	6-12	12-24	>40	•	–	–
 	20 L (Canister), 205 L (Drum)										

Corrosion Preventives

Product name	Description	Kin. visc. at 40 °C [mm²/s] DIN 51562	Density at 15 °C [KG/m³]	Con- sump- tion [l/m²]	Film weight [g/m²]	Shed stor- age [Mon.]	Hall stor- age [Mon.]	FP [°C]	Thix- otropic	VCI	Opti- mized lubri- cating proper- ties
Water Displacing Corrosion Protection Products											
ANTICORIT DFW 8101	Dewatering fluid, leaving a thin, waxy protection layer, iso-paraffin	3.5 at 20 °C	780	0.013	1	3-6	6-12	>60	•	–	–
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)										
ANTICORIT DFW 8301	Dewatering fluid, leaving a thick, soft waxy protection layer, isoparaffin	3.7 at 20 °C	800	0.013	2.5	6-12	12-24	>60	•	–	–
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)										
ANTICORIT DFW 9101	Dewatering fluid, leaving a thin, waxy protection layer, VOC-free acc. to 31. BlmSchV	4.2 at 20 °C	820	0.012	1	3-6	6-12	>90	•	–	–
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)										
ANTICORIT DFW 9301	Dewatering fluid, leaving a thick, soft waxy protection layer, VOC-free according to 31. BlmSchV	6.7 at 20 °C	835	0.012	2.5	6-12	12-24	>90	•	–	–
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)										
ANTICORIT DFW 9201	Dewatering fluid, leaving a thick, soft waxy protection layer, VOC free according to 31. BlmSchV	5.5 at 20 °C	830	0.012	1.8	6-9	12-18	>90	•	–	–
	1000 L (IBC)										

ANTICORIT

Product name	Description	Kin. visc. at 40 °C [mm²/s] DIN 51562	Density at 15 °C [KG/m³]	Consumption [l/m²]	Film weight [g/m²]	Shed storage [Mon.]	Hall storage [Mon.]	FP [°C]	Thixotropic	VCI	Optimized lubricating properties
Water-miscible, Oily Corrosion Protection Products											
ANTICORIT WMC 7000	Emulsifiable corrosion protection oil with good corrosion protection	60	922	Depends on conc.	Depends on conc.	Depends on conc.	Depends on conc.	>175	–	–	–
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)										
ANTICORIT WMC 9000	Emulsifiable corrosion protection oil with high corrosion protection	100	942	Depends on conc.	Depends on conc.	Depends on conc.	Depends on conc.	>175	–	–	–
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)										
ANTICORIT WMC 9002	Emulsifiable oil with high corrosion protection on steel and zinc, supports forming processes	100	910	Depends on conc.	Depends on conc.	Depends on conc.	Depends on conc.	>150	–	–	–
	20 L (Canister)										
ANTICORIT WMD 9200	Emulsion with outstanding corrosion protection like a dewatering. VOC-free, fast drying	50	980	0.04	2	3-6	6-12	>150	–	–	–
	205 L (Drum)										
ANTICORIT MKR 10	Emulsifiable corrosion protection oil with high corrosion protection and thixotropic characteristics	128	931	Depends on conc.	Depends on conc.	Depends on conc.	Depends on conc.	>150	•	–	–
 	205 L (Drum), 1000 L (IBC)										
Water-miscible, Synthetic Corrosion Protection Product											
ANTICORIT SKR 3001	Mineral oil-free (synthetic) corrosion protection concentrate	–	1030	Depends on conc.	Depends on conc.	–	<1	–	–	•	–
 	20 L (Canister), 205 L (Drum)										

Corrosion Preventives

Product name	Description	Kin. visc. at 40 °C [mm²/s] DIN 51562	Density at 15 °C [KG/m³]	Consumption [l/m²]	Film weight [g/m²]	Shed storage [Mon.]	Hall storage [Mon.]	FP [°C]	Thixotropic	VCI	Optimized lubricating properties
Corrosion Protection Coatings											
ANTICORIT BW 366	Solvent containing corrosion protection wax, leaves a brownish touch dry film with very high corrosion protection properties	FT - 4mm nozzle = 60s	885	0.311	50	12-36	12-36	>60	•	–	–
  	8 kg (Pail), 20 L (Canister), 205 L (Drum)										
ANTICORIT HKW 6501	Solvent-based, high performance corrosion protection wax; excellent multi-metal adhesion	FT - 4mm nozzle = 30s	920	0.272	50	12-36	12-36	>40	•	–	–
	205 L (Drum)										
ANTICORIT CPX 3373	Solvent-free, high performance corrosion protection coating with thixotropy; curing oxidatively	dyn. visc. at 300 1/s = 350mPas	1050	0.048	75	>36	>36	>135	•	–	–
   	1 L (Metal Can), 20 L (Canister), 205 L (Drum), 1000 L (IBC)										
ANTICORIT CPX 3373 VW LV	Solvent-free, high performance corrosion protection coating with lower thixotropy; curing oxidatively	dyn. visc. at 300 1/s = 170mPas	1050	0.048	30	>24	>24	>220	•	–	–
	29 kg (Hobstock)										
ANTICORIT CPX 3373 VW HV	Solvent-free, high performance corrosion protection coating with higher thixotropy; curing oxidatively	dyn. visc. 300 1/s = 190mPas	1050	0.048	75	>36	>36	>160	•	–	–
	205 L (Drum)										
ANTICORIT CPX 3230	Solvent-free, high performance corrosion protection coating with very high thixotropy; curing oxidatively; suitable for underbody application	dyn. visc. at 300 1/s = 2000mPas	1080	0.139	150	>36	>36	>130	•	–	–
	205 L (Drum)										
ANTICORIT CPX 3320	Solvent-free, high performance corrosion protection coating with thixotropy; curing oxidatively; low odour	dyn. visc. at 300 1/s = 250mPas	1090	0.046	50	>36	>36	>130	•	–	–
	205 L (Drum)										

ANTICORIT

Product name	Description	Iron, Steel	Copper	Aluminium	Film weight [g/m²]	Shed storage [Mon.]	Hall storage [Mon.]	FP [°C]	Thixotropic	VCI	Optimized lubricating properties
Volatile Corrosion Inhibitor											
ANTICORIT VCI UNI O 40	Corrosion protection of closed systems like tanks and gear boxes. Miscible with diesel, gear oils and other mineral oils	•	•	•	–	≤6	≤24	>120	–	•	–
	20 L (Canister), 205 L (Drum)										
ANTICORIT VCI UNI IP 30	Corrosion protection of closed packaging systems like blisters and card board boxes. Suitable for e. g. power train components and body in white parts	•	•	•	–	≤6	≤24	>60	–	•	–
	20 L (Canister), 205 L (Drum)										
ANTICORIT VCI UNI S	Corrosion protection for easy application in already existing packaging solutions	•	•	•	–	≤6	≤24	–	–	•	–
	600 x 25 g (Sachets of powder per box)										
ANTICORIT VCI F P	VCI film for corrosion protection during shipping and storage (available as gusseted bags, flat films and others)	•	•	•	–	≤6	≤24	–	–	•	–
	On request										
ANTICORIT VCI P	VCI paper for protection during shipping and storage	•	•	•	–	≤6	≤24	–	–	•	–
	On request										

Corrosion Preventives

Product name	Description	Kin. visc. at 40 °C [mm²/s] DIN 51562	Density at 15 °C [KG/m³]	Con- sump- tion [l/m²]	Film weight [g/m²]	Shed storage [Mon.]	Hall stor- age [Mon.]	FP [°C]	Thix- otropic	VCI	Opti- mized lubri- cating prop- erties
Maintenance Fluids for Dewatering Products											
ANTICORIT DF 9000	Water displacement, leaving no residues, D90 solvent, VOC- free according to 31. BlmSchV	2.8 at 20 °C	810	–	–	–	–	>90	–	–	–
 	205 L (Drum), 1000 L (IBC)										
ANTICORIT DFC 1001	Additive to enhance water displacement properties	6.2 at 20 °C	953 at 20 °C	–	–	–	–	>105	–	–	–
 	20 L (Canister), 205 L (Drum)										

ANTICORIT

Product name	Description	Kin. visc. at 40 °C [mm²/s] DIN 51562	Density at 15 °C [KG/m³]	Con- sump- tion [l/m²]	Film weight [g/m²]	Shed storage [Mon.]	Hall storage [Mon.]
Spraying Cans							
ANTICORIT 5F 🔧	Rust preventative spray forming a film with active water displacement 12 x 400 ml	3.7 at 20 °C	813	–	2.5	6-12	12-24
ANTICORIT BW 366 🔧	Solvent-based and durable high performance corrosion protection wax 12 x 400 ml	FT 4mm nozzle = 60s	885	–	50	12-36	12-36
ANTICORIT HKW 6501 🔧	Solvent-based, high performance corrosion protection wax; excellent multi-metal adhesion 12 x 400 ml	FT 4mm nozzle = 30s	920	–	50	12-36	12-36
ANTICORIT DFG 🔧	Rust preventative spray, after evaporation a highly viscous film is formed 12 x 400 ml	8.5	851	–	5	3-6	6-12
ANTICORIT RPC 🔧	Classic anti-corrosive oil and contact spray, multipurpose 12 x 400 ml	84	887	–	5	6-12	6-24
ANTICORIT CPX 3373 🔧	Solvent-free and durable high performance corrosion protection coating; curing oxidatively 12 x 400 ml	Dyn. visc. at 300 1/s = 350mPas	1050	–	50	>36	>36
ANTICORIT SYNTH 🔧	Synthetic multipurpose oil 12 x 400 ml	102	834	–	15	3-6	6-12
ANTICORIT RP 4107 S 🔧	Thixotropic corrosion protection oil, meets VDA 230-213 12 x 400 ml	35	887	–	11	6-12	12-20

Cold Forming Lubricants



Product name	Description	Kin. visc. at 40 °C [mm²/s] DIN 51562	Density at 15 °C [g/ml]	Flash point [°C]	Steel carbon (a. alloyed, zinc plated)	Steel, stainless	Aluminum	Copper alloys
Non Water-miscible Cold Forming Lubricants for Deep Drawing								
RENOFORM ZO 3107/22	Low-viscosity high-performance lubricant for non-ferrous metals	21	0.87	200	●○	●○	●●	●
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)							
RENOFORM DMO 3027	Low-viscosity, mineral oil based forming lubricant for drawing and stamping operations	29	0.93	190	●●	●	●	○
 	205 L (Drum), 1000 L (IBC)							
RENOFORM 96	Classic, powerful multi-purpose lubricant	39	0.92	182	●●	●	●	○
  	205 L (Drum), 1000 L (IBC), Tank Truck							
RENOFORM ZO 3408	Based upon synthetic ingredients high performance forming lubricant. Suitable for all common metals, including non-ferrous metals.	45	0.96	180	●●	●	●●	●●
 	20 L (Canister), 205 L (Drum)							
RENOFORM DSO 5005	Based upon synthetic ingredients highest performance forming lubricant. Especially suitable for difficult deep drawing of steel including stainless steel.	97	0.96	>180	●●	●●	●	○
  	205 L (Drum), 1000 L (IBC), Tank Truck							

RENOFORM

Product name	Description	Kin. visc. at 40 °C [mm²/s] DIN 51562	Density at 15 °C [g/ml]	Flash point [°C]	Steel carbon (a. alloyed, zinc plated)	Steel, stainless	Aluminum	Copper alloys
Non Water-miscible Cold Forming Lubricants for Deep Drawing								
RENOFORM PLUS 93 B	Mineral oil based forming lubricant with EP agents and high lubricity	110	0.94	>200	••	•	•	○
	205 L (Drum)							
RENOFORM ZO 3180	Classic, powerful multi-purpose forming lubricant at higher viscosity level	117	0.98	180	••	•	•○	○
   	20 L (Canister), 205 L (Drum), 1000 L (IBC), Tank Truck							
RENOFORM DSO 5012	Highest-performance, newest generation forming lubricant especially for stainless steel applications. Based upon synthetic ingredients and EP agents and able to replace chlorinated forming lubricants.	167	1.03	>180	•	••	•○	○
 	205 L (Drum), 1000 L (IBC)							
RENOFORM DY0 5007	High-performance, mineral oil based forming lubricant for non-ferrous-metals, especially designed for aluminium deep drawing.	171	0.91	>200	•	•○	••	•
 	205 L (Drum), 1000 L (IBC)							
RENOFORM DSO 5015	Based upon synthetic ingredients highest performance forming lubricant. Especially suitable for difficult deep drawing of steel including stainless steel.	175	1.00	>180	•	••	•○	○
	205 L (Drum)							
RENOFORM ZO 3107/180	High viscous, high-performance lubricant for non-ferrous metals	180	0.90	200	•○	•○	••	•
	205 L (Drum)							
RENOFORM 19 B	High-performance forming lubricant for deep drawing of steel and aluminium	205	0.97	200	••	•	•	○
	205 L (Drum)							
RENOFORM DSO 7006	Based upon synthetic ingredients high performance forming lubricant. Especially suitable for stainless steel grades	570	0.98	>150	•	••	•	○
	20 L (Canister)							
RENOFORM HBO 3212	High-viscosity, high-performance lubricant for deep drawing of different kind of steel	840	0.97	200	••	••	•	○
	205 L (Drum)							

Cold Forming Lubricants

Product name	Description	Kin. visc. at 40 °C [mm ² /s] DIN 51562	Density at 15 °C [g/ml]	Flash point [°C]	Steel carbon (a. alloyed, zinc plated)	Steel, stainless	Aluminum	Copper alloys
Water-miscible Cold Forming Lubricants for Deep Drawing								
RENOFORM DSW 2012	Synthetic, water-based forming lubricant for a wide range of forming processes (drawing, punching, stamping and bending processes) with a large variety of material compatibility	3	1.03	–	••	•	•	••
 	205 L (Drum), 1000 L (IBC)							
RENOFORM DSW 4003 A	Synthetic, water-based forming lubricant for a wide range of drawing operations	5	1.08	–	••	•	○	○
	1000 L (IBC)							
RENOFORM MBW 2055	Mineral oil based, water-miscible forming lubricant, concentrate for emulsion	300	0.97	200	••	•	••	○
 	205 L (Drum), 1000 L (IBC)							
RENOFORM MBW 2815	Mineral oil based, water-miscible high performance forming lubricant, concentrate for emulsion	390	0.99	–	••	•	•○	○
	205 L (Drum)							
RENOFORM MBW 677/6	Mineral oil based, water-miscible high-performance lubricant. Boron free. Concentrate for emulsion	165	0.98	200	••	•	•○	○
 	205 L (Drum), 1000 L (IBC)							
RENOFORM DSW 6002	Water-miscible synthetic high-performance lubricant for the most demanding forming operations, especially for carbon steels. Boron free. Concentrate for solution	276	1.04	–	••	•	○	○
	1000 L (IBC)							
RENOFORM ZW 3356	Water-miscible synthetic high-performance lubricant for the most demanding forming operations, also for stainless steels, also suitable for fine blanking. Boron free. Concentrate for solution	300	1.02	180	••	••	•	○
 	20 L (Canister), 1000 L (IBC)							

RENOFORM

Product name	Description	Kin. visc. at 40 °C [mm ² /s] DIN 51562	Density at 15 °C [g/ml]	Flash point [°C]	Steel carbon (a. alloyed, zinc plated)	Steel, stainless	Aluminum	Copper alloys
Pasty, Non Water-miscible Cold Forming Lubricants for Deep Drawing								
RENOFORM HBT 581/3	Mineral oil containing, non water-miscible and pigmented paste	–	0.97	–	••	•	•	○
	180 kg (Drum)							
RENOFORM HAP 801/6	Mineral oil containing, non water-miscible and pigmented paste, especially for stainless steel and as alternative for chlorine containing lubricants	–	1.05	–	•	••	•	○
	180 kg (Drum)							
Pasty, Water-miscible Cold Forming Lubricants for Deep Drawing								
RENOFORM PRESSALIN	Synthetic water-miscible and pigmented forming paste for various demanding deep-drawing operations	–	1.00	–	••	••	•	○
 	25 kg (Hobcock), 160 kg (Drum)							

Cold Forming Lubricants

Product name	Description	Kin. visc. at 40 °C [mm²/s] DIN 51562	Density at 15 °C [g/ml]	Flash point [°C]	Steel carbon (a. alloyed, zinc plated)	Steel, stainless	Aluminum	Copper alloys
Cold Forming Lubricants without Solvents for Blanking								
RENOFORM DMO 2003 	Low-viscosity stamping oil for carbon steels 205 L (Drum), 1000 L (IBC)	8.3	0.85	170	••	•◦	•	◦
RENOFORM AK 3080 	Synthetic forming lubricant for blanking, stamping, bending and drawing processes. Especially for non-ferrous metals 20 L (Canister), 205 L (Drum)	20	0.84	172	•	•	••	••
RENOFORM ZO 3107/22 	Low-viscosity forming lubricant for non-ferrous metals 20 L (Canister), 205 L (Drum), 1000 L (IBC)	21	0.87	200	•	•◦	••	•
RENOFORM DMO 3027 	Low-viscosity, mineral oil based forming lubricant for drawing and stamping operations 205 L (Drum), 1000 L (IBC)	29	0.93	190	••	•	•	◦
RENOFORM 96 	Low-viscosity, mineral oil based forming lubricant for drawing and stamping operations 205 L (Drum), 1000 L (IBC), Tank Truck	39	0.92	182	••	•	•	◦
RENOFORM ZO 3368 	High-performance blanking oil of medium viscosity for processing a wide range of materials 20 L (Canister), 205 L (Drum)	51	0.98	180	••	••	••	◦
RENOFORM DMO 4034 	Low viscosity, versatile forming lubricant, especially for stainless steel grades 20 L (Canister), 205 L (Drum)	52	0.93	180	••	••	•	◦
RENOFORM HBO 2222 	High-performance stamping lubricant for all kinds of steel, also suitable for fine blanking 205 L (Drum), 1000 L (IBC)	58	1.03	186	••	•	•◦	◦
RENOFORM HBO 962/2 	All purpose forming lubricant for stamping and drawing 20 L (Canister), 205 L (Drum), 1000 L (IBC), Tank Truck	80	0.94	230	••	•	•◦	◦
RENOFORM FSO 4001 	Based upon synthetic ingredients high performance forming lubricant. Suitable for all common metals, including non-ferrous metals 205 L (Drum)	93	0.95	180	•	••	•	••

RENOFORM

Product name	Description	Kin. visc. at 40 °C [mm ² /s] DIN 51562	Density at 15 °C [g/ml]	Flash point [°C]	Steel carbon (a. alloyed, zinc plated)	Steel, stainless	Aluminum	Copper alloys
Cold Forming Lubricants with Solvents for Blanking								
RENOFORM SVO/SP	Almost completely fast vanishing forming lubricant for easy application	1.3	0.75	47	••	•	••	••
	205 L (Drum)							
RENOFORM UBO 377/1	Almost completely vanishing forming lubricant for easy applications	1.2	0.79	62	••	•	••	••
 	205 L (Drum), 1000 L (IBC)							
PLANTOFORM BSO 1002	Almost residue-free vanishing forming lubricant from renew- able raw materials	5.4	0.86	130	••	••	••	••
	170 kg (Drum)							
RENOFORM DMV 1011	Almost residue-free vanishing forming lubricant for light-duty applications	1.2	0.79	62	••	•	••	••
	205 L (Drum)							
RENOFORM UBO 377/5	Vanishing forming lubricant with less residue	2	0.80	62	••	•	••	••
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)							
RENOFORM AK 3085	Vanishing forming lubricant with less residue. Especially for aluminium and non-ferrous metals	2	0.80	65	•	•	••	••
 	20 L (Canister), 205 L (Drum)							
RENOFORM DMV 1009	Vanishing forming lubricant with low residue	1.6	0.80	63	••	•	••	••
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)							
RENOFORM AK 3107	Vanishing forming lubricant with low residue especially for aluminium applications	3	0.81	65	•	•	••	••
	205 L (Drum)							
RENOFORM ZO 3107/5	Primarily vanishing forming lubricant, particularly for alu- minum	5	0.83	65	•	•	••	••
 	205 L (Drum), 1000 L (IBC)							
RENOFORM DMV 1012	Partly vanishing forming lubri- cant for sophisticated applica- tions	4	0.82	62	••	••	••	••
  	20 L (Canister), 205 L (Drum), 1000 L (IBC)							
RENOFORM LVO 377/1	Almost residue-free vanishing forming lubricant for light-duty applications. VOC-free	4	0.82	101	••	•	••	••
 	205 L (Drum), 1000 L (IBC)							

Cold Forming Lubricants

Product name	Description	Kin. visc. at 40 °C [mm²/s] DIN 51562	Density at 15 °C [g/ml]	Flash point [°C]	Steel carbon (a. alloyed, zinc plated)	Steel, stainless	Aluminum	Copper alloys
Cold Forming Lubricants with Solvents for Blanking								
RENOFORM LVO 1518	Partly vanishing forming lubri- cant for sophisticated applica- tions. VOC-free	3	0.84	>102	••	••	•	○
 	205 L (Drum), 1000 L (IBC)							

RENOFORM

Product name	Description	Kin. visc. at 40 °C [mm ² /s] DIN 51562	Density at 15 °C [g/ml]	Flash point [°C]	Steel carbon (a. alloyed, zinc plated)	Steel, stainless	Aluminum	Copper alloys
Cold Forming Lubricants for Fine Blanking								
RENOFORM 96	Classic, powerful multi-purpose forming lubricant	39	0.92	182	•	•	•	○
  	205 L (Drum), 1000 L (IBC), Tank Truck							
RENOFORM FMO 5020	High-performance lubricant for various forming technologies, especially fine blanking, with special FEINTOOL approval	110	0.96	200	••	•	•○	○
  	205 L (Drum), 1000 L (IBC), Tank Truck							
RENOFORM ZO 3180	Classic, powerful multi-purpose forming lubricant at higher viscosity level	117	0.98	180	••	•	•○	○
   	20 L (Canister), 205 L (Drum), 1000 L (IBC), Tank Truck							
RENOFORM HBO 2222 HV	Classic fine blanking lubricant with high performance for steel grades	120	1.03	190	••	•	•○	○
	205 L (Drum)							
RENOFORM ZSB 120 JBM	Fine blanking oil for all kinds of steel	134	0.97	>160	••	•	•○	○
  	205 L (Drum), 1000 L (IBC), Tank Truck							
RENOFORM DSO 5012	Highest-performance, newest generation forming lubricant especially for stainless steel fine blanking applications. Based upon synthetic ingredients and EP agents and able to replace chlorinated forming lubricants. Special FEINTOOL approval.	167	1.03	>180	•	••	•○	○
 	205 L (Drum), 1000 L (IBC)							
RENOFORM FMO 5010	High-performance lubricant for various forming technologies, especially fine blanking. With special FEINTOOL approval	170	0.94	200	••	•	•○	○
	205 L (Drum)							
RENOFORM FMO 5022	High-performance fine blanking oil of the latest generation	183	0.97	>180	••	•	•○	○
 	205 L (Drum), 1000 L (IBC)							

Cold Forming Lubricants

Product name	Description	Kin. visc. at 40 °C [mm ² /s] DIN 51562	Density at 15 °C [g/ml]	Flash point [°C]	Steel carbon (a. alloyed, zinc plated)	Steel, stainless	Aluminum	Copper alloys
Cold Forming Lubricants for Cold Forging – Heavy Forming								
RENOFORM FSO 4001	Based upon synthetic ingredients high-performance forming lubricant. Suitable for all common metals, including non-ferrous metals	93	0.95	180	•	••	•	••
	205 L (Drum)							
RENOFORM ESO 5002	High-performance cold extrusion oil for difficult operations. In some cases, phosphating of the surface can be skipped	110	0.98	180	••	•	•◦	◦
	20 L (Canister)							
RENOFORM MBO 369/2	Classic, heavy duty cold extrusion oil	126	0.95	220	••	•	•	◦
 	205 L (Drum), 1000 L (IBC)							
RENOFORM ZO 3373	Universal high-performance lubricant for cold forging even at elevated temperatures	127	0.93	200	••	•	••	◦
 	205 L (Drum), 1000 L (IBC)							
Cold Forming Lubricants for Cold Forging – for Circular Lubrication								
RENOFORM DMO 4039	Universal high-performance lubricant for circular lubrication	77	0.91	200	••	•	•	•◦
 	205 L (Drum), 1000 L (IBC)							
RENOFORM EMO 4020	High-performance lubricant for circular lubrication	93	0.95	>180	••	•	•	•◦
	205 L (Drum)							

RENOFORM

Product name	Description	Kin. visc. at 40 °C [mm ² /s] DIN 51562	Density at 15 °C [g/ml]	Flash point [°C]	Steel carbon (a. alloyed, zinc plated)	Steel, stainless	Aluminum	Copper alloys
Non Water-miscible Cold Forming Lubricants for WTB Drawing (Wire - Tube - Bar)								
RENOFORM ESO 5002	Multi and high-performance lubricant for extrusion, also difficult calibration	110	0.98	180	••	•	•◦	◦
	20 L (Canister)							
RENOFORM DSO 7006	Based upon synthetic ingredients high performance forming lubricant. Especially suitable for stainless steel grades	570	0.98	>150	•	••	•	◦
	20 L (Canister)							
RENOFORM DSO 7010	High-performance lubricant for drawing of seamless, stainless steel tubes	1014	1.00	>180	•	••	•	◦
	205 L (Drum)							
RENOFORM HBO 3014	High-performance lubricant for drawing of round and cantilever steel rods	320	1.01	190	••	•	•	◦
 	205 L (Drum), 1000 L (IBC)							
Non Water-miscible Cold Forming Lubricants for Hydroforming								
RENOFORM MBO 2907	Synthetic demulsifying external lubricant for hydroforming	122	0.96	200	••	•	•◦	•◦
	205 L (Drum)							
RENOFORM HMO 7001	Mineral oil based external lubricant for hydroforming	630	0.92	>200	••	•	•◦	◦
	205 L (Drum)							
Water-miscible Cold Forming Lubricants for Hydroforming								
RENOFORM DSW 2004	Boron-free pressurising lubricant	1.1	1.06	—	••	•	•	•
	205 L (Drum)							

Cold Forming Lubricants



Product name	Description	Kin. visc. at 40 °C [mm²/s] DIN 51562	Density at 15 °C [g/ml]	Flash point [°C]	Steel carbon (a. alloyed, zinc plated)	Steel, stainless	Aluminum	Copper alloys
VDA Forming Lubricants								
RENOFORM MCO 3802 SN	Spot lubricant in the car body shop for light to medium forming and stamping operations, fulfils the requirements of VDA 201-213	100	0.92	142	••	•	••	•◦
	60 L (Drum), 205 L (Drum)							
RENOFORM MCO 3802	Spot lubricant in the body shop for medium and heavy forming operations, fulfils the requirements of VDA 201-213	130	0.92	155	••	•	••	•◦
  	205 L (Drum), 1000 L (IBC), Tank Truck							
RENOFORM MCO 3802 LV	Predominantly fast evaporating forming lubricant for stamping, bending and light drawing operations. Evaporation residue corresponds to RENOFORM MCO 3028	2.5 at 20 °C	0.78	260	••	•	••	•◦
 	205 L (Drum), 1000 L (IBC)							
RENOFORM MCO 3802 MV	Spot lubricant in the car body shop for light to medium forming and stamping operations	7	0.85	100	••	•	••	•◦
	205 L (Drum)							

Rolling Oils

RENOFORM



Product name	Description	Kin. visc. at 40 °C [mm ² /s] DIN 51562	Density at 15 °C [g/ml]	Flash point [°C]	Steel carbon (a. alloyed, zinc plated)	Steel, stainless	Aluminum	Copper alloys
Non Water-miscible Rolling Oils								
RENOFORM WO 52 B	Cold rolling oil and skin pass oil with excellent corrosion protec- tion	6	0.85	>100	••	•	•◦	••
  	205 L (Drum), 1000 L (IBC), Tank Truck							
RENOFORM WO 79 A	Cold rolling oil with additional EP additives	9	0.85	>170	••	•	•◦	••
	205 L (Drum)							
TRENOIL CCO 40	Cold rolling for non-ferrous metals	5	0.83	148	••	•	•◦	••
	Tank Truck							

Further rolling oils and rolling emulsions on request.

•• = very suitable; • = suitable; •◦ = conditional; ◦ = unsuitable

FUCHS Special Applications

Hot Forming Lubricants

Hot forming places high demands on the lubricants used. On the one hand, there is the need to lubricate and cool tools, and on the other hand, hot forming processes are subject to a large number of influencing factors. FUCHS hot forming lubricants not only cover a very wide range of applications, but also stand for excellent part quality, optimum machine utilization, reduced operating costs and lower environmental impact. They are marked with FUCHS Special Applications and are thus among the lubricants for highly specialized applications.



Product name	Description	Dry residue [%]	RF-value [%]	Visc. [mPas]	Density [g/cm³]	Water-miscible	Solids	Material recommendation
Hot Forming Lubricants for Drop Forging								
GRASINOL 10 % ☞	Dispersion of graphite in mineral oil for forging of complex aluminum components 180 kg (Drum)	–	–	600	1.01	◦	Graphite	Aluminium
HYKOGREEN 217 ☞ ☞	Oil-graphite dispersion for forging of complex steel components 25 kg (Bucket), 190 kg (Drum)	–	–	6500	1.00	◦	Graphite	Steel
HYKOGREEN 87/3 ☞ ☞	Graphite-containing forming lubricant for forging of complex brass components 25 kg (Pail), 180 kg (Drum)	–	–	2000	0.91	◦	Graphite	Brass
HYKOGREEN 87/43 ☞	Forming lubricant for long extrusion paths, e.g. in the forging of car valves 25 kg (Bucket)	–	–	5500	–	◦	Graphite	Steel
HYKOGREEN G 30 ☞	Dispersion of highly ground, chemically pure graphite in mineral oil for hot forming of steel and non-ferrous metals 185 kg (Drum)	–	–	>15000	1.10	◦	Graphite	Steel
HYKOGREEN G 60 ☞	Highly concentrated dispersion of graphite in mineral oil for hot forming of steel and non-ferrous metals 25 kg (Bucket)	–	–	–	1.30	◦	Graphite	Steel

HYKOGREEN, LUBRODAL

Product name	Description	Dry residue [%]	RF-value [%]	Visc. [mPas]	Density [g/cm³]	Water-miscible	Solids	Material recommendation
Hot Forming Lubricants for Drop Forging								
HYKOGREEN MB 1000  	Graphite-containing forming lubricant for forging of complex brass components 25 kg (Pail), 180 kg (Drum)	–	–	2000	0.94	○	Graphite	Brass
HYKOGREEN UMD 2/1  	Versatile graphite dispersion for hot forming of steel and non-ferrous metals 25 kg (Pail), 200 kg (Drum)	–	–	–	1.10	○	Graphite	Steel
LUBRODAL F 105   	Water-graphite dispersion for steel forging with a wide wetting temperature range and excellent lubrication properties 25 kg (Bucket), 200 kg (Drum), 1000 kg (IBC)	25	–	1200	–	●	Graphite	Steel
LUBRODAL F 18/24 W - AF   	Graphite-containing emulsion for forging of highly complex aluminum components 25 kg (Bucket), 200 kg (Drum), 1000 kg (IBC)	46	–	3500	1.05	●	Graphite	Aluminium
LUBRODAL F 20 CH   	Economical water-graphite dispersion for steel forging with high active agent concentration 25 kg (Bucket), 220 kg (Drum), 1200 kg (IBC)	42	–	3000	1.30	●	Graphite	Steel
LUBRODAL F 21 A SET   	Hot forming lubricant for forging of steel providing highest process stability and plant availability 25 kg (Bucket), 200 kg (Drum), 1000 kg (IBC)	32	–	950	1.22	●	Graphite	Steel
LUBRODAL F 2336  	Graphite-containing forming lubricant for isothermal forging of highly complex aluminum components 25 kg (Pail), 180 kg (Drum)	–	–	600	–	○	Graphite	Aluminium
LUBRODAL F 24 W   	Graphite-containing emulsion, particularly suitable for semi-hot forging of complex steel components 25 kg (Bucket), 200 kg (Drum), 1000 kg (IBC)	50	–	3500	1.05	●	Graphite	Steel
LUBRODAL F 25 AL  	Emulsion concentrate for forging aluminum components with the highest demands on surface quality 10 kg (Canister), 25kg (Canister), 200 kg (Drum)	22	–	<50	0.98	●	–	Aluminium
LUBRODAL F 25 D  	Water-graphite dispersion for precision forging of steel components 25 kg (Bucket), 1000 kg (IBC)	25	–	300	1.15	●	Graphite	Steel
LUBRODAL F 25 PLE   	Versatile water-graphite dispersion for forging of steel 25 kg (Bucket), 210 kg (Drum), 1000 kg (IBC)	28	–	2000	1.15	●	Graphite	Steel

FUCHS Special Applications

Hot Forming Lubricants

Product name	Description	Dry residue [%]	RF-value [%]	Visc. [mPas]	Density [g/cm³]	Water-miscible	Solids	Material recommendation
Hot Forming Lubricants for Drop Forging								
LUBRODAL F 27 AL	Graphite-, wax- and solid-free forming lubricant for forging of complex aluminum components	20.5	–	1500	–	•	–	Aluminium
	25 kg (Canister), 200 kg (Drum)							
LUBRODAL F 29/2 - TB	Forming lubricant for forging turbine blades from titanium or nickel-based alloys	36.5	–	–	1.22	•	Graphite	Titanium Nickel-base
	25 kg (Bucket), 220 kg (Drum), 1000 kg (IBC)							
LUBRODAL F 31 EB	Economical water-graphite dispersion for forging of steel	32	–	2200	1.20	•	Graphite	Steel
	25 kg (Bucket), 1000 kg (IBC)							
LUBRODAL F 318	Economical, graphite-free forming lubricant for forging of steel components	–	26.5	400	1.11	•	–	Steel
	25 kg (Canister), 220 kg (Drum), 1000 kg (IBC)							
LUBRODAL F 318 N - HV	Graphite-free forming lubricant for forging of complex steel components	26	32	500	1.16	•	–	Steel
	1000 kg (IBC)							
LUBRODAL F 327	Graphite-free forming lubricant for forging of steel with elevated tool temperatures	–	35	800	–	•	–	Steel
	25 kg (Canister), 220 kg (Drum), 1000 kg (IBC)							
LUBRODAL F 33 AL	Water-graphite dispersion with emulsified ester content for forging of complex aluminum components	30	–	2000	1.12	•	Graphite	Aluminium
	25 kg (Pail), 210 kg (Drum), 1000 kg (IBC)							
LUBRODAL F 36	Graphite-containing, mineral oil-free emulsion for isothermal forging of highly complex aluminum components	23.25	–	1400	–	•	Graphite	Aluminium
	25 kg (Pail), 200 kg (Drum), 1000 kg (IBC)							
LUBRODAL F 3629	Water-graphite dispersion for highest wetting temperatures	19	–	350	–	•	Graphite	Steel
	25 kg (Bucket)							
LUBRODAL F 3670	High-performance lubricant for the isothermal forging of complex aluminum components	–	–	450	–	◦	Graphite	Aluminium
	25 kg (Pail), 180 kg (Drum), 900 kg (IBC)							
LUBRODAL F 37	Graphite-containing, mineral oil-free emulsion for isothermal forging of highly complex aluminum components with improved lubrication performance	23.25	–	1400	–	•	Graphite	Aluminium
	25 kg (Pail), 200 kg (Drum)							

LUBRODAL, ZONAL

Product name	Description	Dry residue [%]	RF-value [%]	Visc. [mPas]	Density [g/cm³]	Water-miscible	Solids	Material recommendation
Hot Forming Lubricants for Drop Forging								
LUBRODAL F 40 S 	Graphite-free emulsion for forging of non-ferrous metals	40	–	–	0.99	•	–	Brass
	25 kg (Canister), 200 kg (Drum), 1000 kg (IBC)							
LUBRODAL F 41 G 	Hot and semi-hot forming of steel on fully automated forging lines	32.5	–	1300	–	•	Graphite	Steel
	25 kg (Bucket), 1000 kg (IBC)							
LUBRODAL F 442 	Water-graphite dispersion for very high wetting temperatures and long flow paths	40	–	1150	–	•	Graphite	Steel
	25 kg (Bucket), 230 kg (Drum), 1000 kg (IBC)							
LUBRODAL F 475 E 	Dispersion of highly ground graphite in water for forging of steel, particularly suitable for fast-running forging presses with high tool temperatures	25	–	750	1.15	•	Graphite	Steel
	25 kg (Bucket), 200 kg (Drum), 1000 kg (IBC)							
LUBRODAL F 53/40 	Graphite-free forming lubricant for forging of very complex steel components	33	37	1400	1.18	•	–	Steel
	25 kg (Canister), 220 kg (Drum), 1000 kg (IBC)							
LUBRODAL F 645 AFE 	Forging of complex steel components on fully automated forging lines with circulation lubrication	18	–	1250	1.10	•	Graphite	Steel
	25 kg (Bucket), 200 kg (Drum), 1000 kg (IBC)							
LUBRODAL F70M - 40 LV 	Highly concentrated water-graphite dispersion for forging of large steel components with long contact times	50	–	3500	1.40	•	Graphite	Steel
	25 kg (Bucket), 230 kg (Drum), 1000 kg (IBC)							
LUBRODAL W 27 F 	Water-graphite dispersion for precision forging of steel	27	–	1500	–	•	Graphite	Steel
	25 kg (Bucket), 210 kg (Drum), 1000 kg (IBC)							
LUBRODAL W 27 F/260 	Dispersion of highly ground graphites for precision forging of steel	27.5	–	–	1.20	•	Graphite	Steel
	25 kg (Bucket), 210 kg (Drum)							
ZONAL 1000 	Dispersion of highly ground graphite in mineral oil	–	–	1000	–	◦	Graphite	Steel
	20 kg (Canister), 200 kg (Drum)							
ZONAL 1002 	Dispersion of highly ground graphite in mineral oil	–	–	330	–	◦	Graphite	Steel
	20 kg (Canister), 180 kg (Drum)							

FUCHS Special Applications

Hot Forming Lubricants

Product name	Description	Dry residue [%]	RF-value [%]	Visc. [mPas]	Density [g/cm³]	Water-miscible	Solids	Material recommendation
Hot Forming Lubricants for Hammer Forging								
LUBRODAL C 38 N	Hammer forging of steel components. High propulsive effect and good lubrication properties	35	–	–	1.17	•	–	Steel
  	25 kg (Canister), 220 kg (Drum), 1000 kg (IBC)							
LUBRODAL F 185	Graphite-containing forming lubricant with increased release power and propulsive effect	25	–	1750	–	•	Graphite	Steel
  	25 kg (Bucket), 200 kg (Drum), 1000 kg (IBC)							
LUBRODAL F 64 GM	Forming lubricant for hammer forging of complex steel components with very high propulsive effect	35	–	100	1.16	•	–	Steel
  	25 kg (Canister), 220 kg (Drum), 1000 kg (IBC)							
Hot Forming Lubricants for High-speed Forging								
LUBRODAL C 102	Start-up additive for circulation baths in high-speed forging	40	–	–	0.99	•	–	Steel
	25 kg (Canister)							
LUBRODAL C 48 PM	High-speed forging of highly complex steel components (hot and semi-hot)	35	–	900	1.15	•	–	Steel
  	25 kg (Canister), 220 kg (Drum), 1000 kg (IBC)							
LUBRODAL F 270 EP	EP additive for circulation baths in high-speed forging	24.5	25	–	–	•	–	Steel
	25 kg (Canister)							
LUBRODAL F 318 H	Graphite-free forming lubricant for high-speed forging of steel components	–	39	500	1.17	•	–	Steel
 	220 kg (Drum), 1000 kg (IBC)							
Hot Forming Lubricants for Rotatory Forming Operations								
LUBRODAL F 400	Graphite-free hot forming lubricant for forging of steel or especially for flow forming processes as in the production of aluminum rims	–	38	375	1.17	•	–	Aluminium
  	25 kg (Canister), 220 kg (Drum), 1000 kg (IBC)							
LUBRODAL F 53/318	Graphite-free hot forming lubricant, particularly suitable for ring rolling of steel	–	37	500	1.16	•	–	Steel
 	200 kg (Drum), 1000 kg (IBC)							
LUBRODAL F 70 B	Graphite-containing mandrel bar lubricant for seamless tube production	50	–	7000	1.40	•	Graphite	Steel
 	230 kg (Drum), 1000 kg (IBC)							
LUBRODAL F 95	Graphite-containing emulsion, particularly suitable for rotary forging of large aluminum components	50	–	4500	1.25	•	Graphite	Aluminium
	200 kg (Drum)							

LUBRODAL

Product name	Description	Dry residue [%]	RF-value [%]	Visc. [mPas]	Density [g/cm³]	Water-miscible	Solids	Material recommendation
Hot Forming Lubricants for Rotatory Forming Operations								
LUBRODAL ST 500 V 	Graphite-free mandrel bar lubricant for seamless tube production	44	–	20	1.45	•	–	Steel
	1400 kg (IBC)							
Hot Forming Lubricants for Billet Pretreatment								
LUBRODAL FC 331  	Pre-graphiting agent for semi-hot forming of steel	30	–	4000	1.20	•	Graphite	Steel
	25 kg (Bucket), 220 kg (Drum)							
LUBRODAL FC 441  	Pre-graphiting agent for hot forming of steel	41	–	4500	1.29	•	Graphite	Steel
	25 kg (Bucket), 230 kg (Drum)							
LUBRODAL RV 20 	Billet coating to prevent sticking during heating	22	–	250000	–	•	white	Steel
	25 kg (Bucket)							
LUBRODAL SR 300   	Scale minimization agent for hot forming of steel	27	22	–	–	•	–	Steel
	5 kg (Canister), 25 kg (Canister), 220 kg (Drum), 1000 kg (IBC)							
LUBRODAL SR 900  	Scale minimization and reduction of skin decarburization for large steel billets	42	–	600	–	•	weiß	Steel
	25 kg (Bucket), 250 kg (Drum)							
LUBRODAL TROMMEL-GRAPHIT 	Pre-graphiting of small billets by tumbling	65	–	–	–	•	Graphite	Brass
	10 kg (Bucket)							
LUBRODAL ZG 600  	Scale reduction agent for semi-hot forming of steel	44	35	–	–	•	–	Steel
	5 kg (Canister), 25 kg (Canister), 1200 kg (IBC)							

FUCHS Special Applications

Hot Forming Lubricants

Product name	Description	Dry residue [%]	RF-value [%]	Visc. [mPas]	Density [g/cm³]	Water-miscible	Solids	Material recommendation
Release Agents and Auxiliary Materials for Pressure Die Casting								
HYKOGREEN CP 43  	Lubrication of critical areas in pressure die casting of non-ferrous metals 1 kg (Can), 5 kg (Bucket), 25 kg (Bucket)	–	–	–	0.90	◦	Graphite	Aluminium
HYKOGREEN EP 10  	Ejector lubricant 1 kg (Can), 15 kg (Bucket)	–	–	–	0.90	◦	Graphite	Aluminium
HYKOGREEN LS 50  	Burn-in paste for casting ladles and related tools in non-ferrous metal casting 1 kg (Can), 5 kg (Bucket), 25 kg (Bucket)	–	–	–	1.30	◦	white	Aluminium
HYKOGREEN LS 507  	Facing for casting ladles, tools, funnels and spouts in aluminium pressure die casting 1 kg (Can), 25 kg (Bucket)	–	–	–	1.20	◦	Graphite	Aluminium
HYKOGREEN P 550  	Graphite-free, liquid plunger lubricant for pressure die casting machines 5 kg (Canister), 25 kg (Pail)	–	–	2000	0.91	◦	–	Aluminium
HYKOGREEN P 770 	Graphite-containing, liquid plunger lubricant for pressure die casting machines 25 kg (Pail)	–	–	1700	0.93	◦	Graphite	Aluminium
HYKOGREEN RLP 100 	Minimum quantity lubricant for aluminum pressure die casting 180 kg (Drum)	–	–	200	–	◦	–	Aluminium
HYKOGREEN ZN 10   	Water-free die casting release agent for zinc pressure die casting 20 kg (Canister), 150 kg (Drum), 750 kg (IBC)	–	–	–	0.77	◦	–	Zinc
HYKOGREEN ZN 15  	Water-free die casting release agent for zinc pressure die casting 20 kg (Canister), 160 kg (Drum)	–	–	–	0.82	◦	–	Zinc
LUBRODAL AL 100/21   	Emulsion concentrate for pressure die casting of highly complex components made of aluminum or magnesium 25 kg (Canister), 200 kg (Drum), 1000 kg (IBC)	–	–	< 50	0.99	●	–	Aluminium
LUBRODAL AL 80  	Wax-free emulsion concentrate for pressure die casting of aluminum 25 kg (Canister), 200 kg (Drum)	–	–	< 50	0.99	●	–	Aluminium
LUBRODAL C 35/40   	Mineral oil-based emulsion for pressure die casting of non-ferrous metals 25 kg (Canister), 200 kg (Drum), 1000 kg (IBC)	40	–	–	0.99	●	–	Aluminium
PISTON POWDER G 2  	Wax granulate for plunger lubrication of pressure die casting machines 12 kg (Bucket), 120 kg (Drum)	–	–	–	–	◦	–	Aluminium
PISTON POWDER W 1 	Graphite-containing wax granulate for plunger lubrication of pressure die casting machines 12 kg (Bucket)	–	–	–	–	◦	Graphite	Aluminium

HYKOGREEN, LUBRODAL

Product name	Description	Dry residue [%]	RF-value [%]	Visc. [mPas]	Density [g/cm³]	Water-miscible	Solids	Material recommendation
Other Products for Hot Forming								
HYKOGREEN 820	Highly concentrated dispersion of white solid lubricants in mineral oil for hot forming				1.60	○	white	Steel
  	1 kg (Can), 5 kg (Bucket), 25 kg (Bucket), 70 kg (Pail)							
HYKOGREEN 821	Dispersion of white solid lubricants in mineral oil for hot forming with improved flowability				0.95	○	white	Steel
  	1 kg (Can), 5 kg (Canister), 25 kg (Pail)							
HYKOGREEN KS 706	Biodegradable mold facing for continuous aluminium casting			600		○	—	Aluminium
	55 kg (Drum)							
HYKOGREEN PASTE 712	Graphite-containing paste with very good adhesion for lubricating very critical areas in hot forming					○	Graphite	Steel
 	5 kg (Bucket), 25 kg (Bucket), 190 kg (Drum)							
LUBRODAL BN	Dispersion of hexagonal boron nitride in water, for lubrication at very high temperatures	25		300	1.14	●	white	Steel
 	1 kg (Bottle), 5 kg (Canister)							
LUBRODAL C 120	Versatile graphite dispersion that forms a very smooth, polishable layer	36		15000		●	Graphite	Steel
 	10 kg (Canister), 30 kg (Pail)							
LUBRODAL C 52 C	White mold facing for nonferrous metal casting	52		2000	1.45	●	white	Aluminium
	10 kg (Bucket)							
LUBRODAL C 60 OP	Base coating of thermally high loaded metal casting tools, such as ladles, gutters and plungers	50		1500	1.80	●	white	Aluminium
 	5 kg (Canister), 30 kg (Bucket)							
LUBRODAL C 71	Mold facing for squeeze casting of aluminum with very good release effect	23		3200	1.20	●	white	Aluminium
	30 kg (Pail)							
LUBRODAL F 30 DS	Versatile graphite dispersion with very good adhesion even on cold surfaces	40		6000		●	Graphite	Steel
 	25 kg (Bucket), 220 kg (Drum)							
LUBRODAL SQC/1	Mold facing for squeeze casting of aluminum with high release and lubricating effect	23		3200	1.20	●	white	Aluminium
	30 kg (Pail)							
LUBRODAL W 27 F - ES	Coating of anode stubs in aluminum production	22		2000		●	Graphite	Aluminium
 	25 kg (Bucket), 210 kg (Drum)							
WAGRAS ZZ 20	Graphite-containing mold facing	21.5			1.17	●	Graphite	Aluminium
  	1 kg (Bottle), 10 kg (Bucket), 25 kg (Bucket), 200 kg (Drum)							

● = suitable; ○ = unsuitable

SPECIAL APPLICATION LUBRICANTS

The product range of FUCHS includes lubricants and release agents for highly specialized applications. These lubricants are always used where the performance of conventional lubricants for the special application reaches its limits. They are marked with FUCHS Special Applications.

FUCHS Special Applications

FUCHS develops highly specialized lubricants and related specialties in close cooperation with customers in order to offer tailor-made solutions. This has resulted in a very broad portfolio over the last decades that is characterized by its performance - even under extreme conditions. Furthermore, special application lubricants from FUCHS stand for sustainability as well as for safety, reliability and economy.



Special Application Lubricants

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Product name	Description	Visc. at 20 °C [mm²/s]	Flash point [°C]	Bio-degradability [% after 28 d]	Water pollution category (German regulation)	GISCODE	Shelf life [months]
Solvent-based Concrete Release Agents for Precast Plants							
SOK 128	Ready-to-use concrete release agent for all common types of formwork. Particularly well suited for e.g. exposed concrete, slabs, beams, special elements.	≤ 4.5	28	91	1	BTM 50	24
SOK ULTRA		≤ 4.5	28	91	1	BTM 50	24
SOK 912		≤ 4.5	28	86	1	BTM 50	24
SOK SI		3.0 ± 0.5	28	n/a	1	BTM 50	24
  	20 L (Canister), 200 L (Drum), 1000 L (IBC)						
SOK BTM UP/4	Odor-reduced and ready-to-use concrete release agent for all common types of formwork based on isoparaffin. Particularly well suited for pigmented concrete.	≤ 4.5	28	n/a	1	BTM 50	24
  	20 L (Canister), 200 L (Drum), 1000 L (IBC)						
SOK U/K 105	Ready-to-use concrete release agent with increased corrosion protection. Particularly well suited for e.g. TT ceilings.	≤ 4.5	28	n/a	1	BTM 50	24
SOK 2/K 105		≤ 4.5	ca. 30	n/a	1	BTM 50	24
  	20 L (Canister), 200 L (Drum), 1000 L (IBC)						
SOK U/K 115	Ready-to-use concrete release agent with very strong corrosion protection for short-term use in case of acute corrosion problems.	≤ 4.5	ca. 32	n/a	1	BTM 50	24
  	20 L (Canister), 200 L (Drum), 1000 L (IBC)						

FUCHS Special Applications Concrete Release Agents

Product name	Description	Visc. at 20 °C [mm²/s]	Flash point [°C]	Bio-degradability [% after 28 d]	Water pollu-tion category (German regulation)	GISCODE	Shelf life [months]
Concrete Release Agent Emulsions for Precast Plants							
SOK AQUA Z PLUS	Ready-to-use concrete release agent for all common types of formwork. Particularly well suited for e.g. exposed concrete, slabs, beams, TT ceilings, special elements.	< 4.5	n/a	> 80	1	BTM 05	6
  	20 L (Canister), 200 L (Drum), 1000 L (IBC)						
SOK AQUA 55 ES	Ready-to-use concrete release agent for all common types of formwork. Particularly well suited for e.g. garages, L-shaped stones, slabs, ceilings and walls.	< 4.5	n/a	n/a	1	BTM 05	6
  	20 L (Canister), 200 L (Drum), 1000 L (IBC)						
SOK AQUA TB 1	Ready-to-use concrete release agent for all common types of formwork. Particularly well suited for tubing production.	5.0 ± 0.5	n/a	n/a	1	BTM 05	6
  	20 L (Canister), 200 L (Drum), 1000 L (IBC)						
SOK AQUA	Ready-to-use concrete release agent for all common types of formwork. Particularly well suited for e.g. ceilings and walls.	< 4.5	n/a	82	1	BTM 05	6
  	20 L (Canister), 200 L (Drum), 1000 L (IBC)						
SOK AQUA G PLUS	Ready-to-use concrete release agent for all common types of formwork. Particularly well suited for large pipes, ceilings and walls.	5.5 - 6.0	n/a	> 80	1	BTM 05	6
  	20 L (Canister), 200 L (Drum), 1000 L (IBC)						
SOK AQUA KS	Ready-to-use concrete release agent with increased corrosion protection. Particularly well suited for filigree ceiling production and shake compaction.	< 4.5	n/a	89.6	1	BTM 05	6
  	20 L (Canister), 200 L (Drum), 1000 L (IBC)						
SOK AQUA HF	Ready-to-use concrete release agent for all common types of formwork. Particularly well suited for e.g. slabs, beams, ceilings and walls.	< 4.5	n/a	n/a	1	BTM 05	6
  	20 L (Canister), 200 L (Drum), 1000 L (IBC)						

SOK

Product name	Description	Visc. at 20 °C [mm²/s]	Flash point [°C]	Bio-degradability [% after 28 d]	Water pollution category (German regulation)	GISCODE	Shelf life [months]
Ester oil-based Concrete Release Agents for Precast Plants							
SOK ECO 107*	EU Ecolabel certified concrete release agent for e.g. ceilings and walls - ready to use.	45.0 ± 4.0	210	> 80	awg	BTM 10	24
  	20 L (Canister), 200 L (Drum), 1000 L (IBC)						
SOK ECO 911	Label-free concrete release agent for spun concrete and the production of concrete sleepers produced with curing process - ready to use.	8.0 ± 1.0	175	> 80	1	BTM 10	24
  	20 L (Canister), 200 L (Drum), 1000 L (IBC)						
SOK MULTITRENN	Blue colored concrete release agent especially for polystyrene stopp-off formwork elements e.g. in the production of filigree ceilings - ready to use.	49.0 - 59.0	208	> 80	1	BTM 10	24
  	20 L (Canister), 200 L (Drum), 1000 L (IBC)						
PLANTO Schalungsöl-S	Label-free concrete release agent for L-shaped stone production - ready to use.	7.3	190	> 60	1	BTM 10	24
	1000 L (IBC)						
Pasty Formwork Waxes							
SOK WAX ECO	Pasty ester oil-based concrete release agent wax with a stiff consistency for complex formwork elements, chamfer strips, etc. Particularly well suited for high outside temperatures.	n/a	ca. 250	n/a	awg	BTM 10	24
	9 kg (Bucket)						
SOK WAX 1	Pasty mineral oil-based concrete release agent wax with soft consistency for complex formwork elements, chamfer strips, etc.	n/a	ca. 150	n/a	1	BTM 10	24
	5 kg (Bucket), 15 kg (Bucket), 25 kg (Bucket)						
SOK WAX ECO S	Pasty ester oil-based concrete release agents wax with a very soft consistency for door and window recesses as well as trowel cutting in filigree ceilings.	n/a	ca. 250	n/a	awg	BTM 10	24
	9 kg (Bucket)						

SOK, BETONEX

Product name	Description	Visc. at 20 °C [mm²/s]	Flash point [°C]	Bio-degradability [% after 28 d]	Water pollution category (German regulation)	GISCODE	Shelf life [months]
Concrete Release Agents for Structural Engineering							
SOK BTM E	Mineral oil-based structural release agent for universal use on the construction site - ready to use.	21.0 ± 2.5	145	> 70	1	BTM 20	24
  	20 L (Canister), 200 L (Drum), 1000 L (IBC)						
SOK 72 S	Mineral oil based concrete release agent especially for the use of rough cutted wooden formwork - ready to use.	23.0 ± 1.0	82	n/a	1	BTM 20	24
  	20 L (Canister), 200 L (Drum), 1000 L (IBC)						
SOK ECO 911	Ester oil-based structural release agent for universal use on the construction site - ready to use.	8.0 - 1.0	175	> 80	1	BTM 10	24
  	20 L (Canister), 200 L (Drum), 1000 L (IBC)						
SOK AQUA 100	Particularly economical concrete release agent concentrate based on ester oil for universal use on the construction site. The 10 L and 20 L canister are each supplied half-filled and are filled-up with water on site in a mixing ratio of 1:1.	14.0 - 17.5	n/a	n/a	1	BTM 05	9
  	5 L (Canister), 10 L (Canister), 200 L (Drum), 1000 L (IBC)						
SOK AQUA E	Ready-to-use mineral oil-based concrete release emulsion for universal use on the construction site.	5.5 - 6.0	n/a	n/a	1	BTM 05	6
  	20 L (Canister), 200 L (Drum), 1000 L (IBC)						
PLANTO Schalungsöl-S	Particularly economical concrete release agent based on ester oils for universal use on the construction site – ready to use.	7.3	190	> 60	1	BTM 10	24
	1000 L (IBC)						
Mixer Protection Agents							
BETONEX* ECO	EU Ecolabel-certified mixer protection based on ester oil. Particularly well suited for concrete mixers, transport slides, concrete pumps. Reduces foam formation during the first concrete mixing.	45.0	300	> 80	awg	BTM 10	24
  	20 L (Canister), 200 L (Drum), 1000 L (IBC)						
BETONEX E	Universally applicable mixer protection based on mineral oil. Particularly well suited for concrete mixers, transport slides, concrete pumps, etc.	21.0 ± 2.5	145	> 70	1	BTM 20	24
BETONEX SP-1		19.0 ± 23.5	125	n/a	1	BTM 20	24
BETONEX PLUS		22.0 ± 1.0	160	n/a	1	BTM 20	24
  	20 L (Canister), 200 L (Drum), 1000 L (IBC)						

FUCHS Special Applications

Asphalt Release Agents & Bitumen Cleaners



Product name	Description	Visc. at 20 °C [mm²/s]	Flash point [°C]	Bio-degradability [% after 28 d]	Water pollution category (German regulation)	GISCODE	Shelf life [months]
Asphalt Release Agents & Bitumen Cleaners							
BITEEREX 1	Universally applicable mineral oil-based asphalt release agent. Particularly well suited for e.g. asphalt mixers, transport trucks and road pavers - ready to use. Test report of the Technical University of Kaiserslautern confirms compatibility with asphalt.	21.0 ± 2.5	145	> 70	1	n/a	24
  	20 L (Canister), 200 L (Drum), 1000 L (IBC)						
BITEEREX* ECO	EU Ecolabel-certified ester oil-based asphalt release agent. Particularly well suited for asphalt mixers, asphalt trucks and road pavers.	ca. 45	300	> 70	awg	n/a	24
  	20 L (Canister), 200 L (Drum), 1000 L (IBC)						
BITEEREX AQUA	Ready-to-use asphalt release agent emulsion for loading areas of asphalt trucks, conveyor belts of asphalt feeders and rubber-wheeled road rollers.	< 4.5	n/a	> 82	1	n/a	6
  	20 L (Canister), 200 L (Drum), 1000 L (IBC)						
BITEEREX C 1	Particularly economical asphalt release agent concentrate for loading areas of asphalt trucks, conveyor belts of asphalt feeders and rubber-wheeled road rollers. The 20 L small canister is delivered half-filled and is filled-up with water on site in a mixing ratio of 1:1.	14.0 - 17.5	n/a	n/a	1	n/a	9
  	10 L (Canister), 200 L (Drum), 1000 L (IBC)						

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BITEEREX

Product name	Description	Visc. at 20 °C [mm ² /s]	Flash point [°C]	Bio-degradability [% after 28 d]	Water pollution category (German regulation)	GISCODE	Shelf life [months]
Asphalt Release Agents & Bitumen Cleaners							
BITEEREX CLEANER	Solvent-based cleaner in a liquid form for surfaces contaminated with bitumen or asphalt.	1.7 - 2.4	ca. 61	n/a	1	n/a	24
	20 L (Canister)						
BITEEREX CLEANER SPRAY	Solvent-based cleaner as a spray for surfaces contaminated with bitumen and asphalt.	n/a	> 61	n/a	1	n/a	24
	400 ml (Spray can)						

FUCHS Special Applications Coatings



Product name	Description	Thinner	pH Value	Color	Temperature range [°C]	Coefficient of friction ¹	Applications
HMP Films							
GLEITMO 300 (also available as GLEITMO 300 SPRAY)	Solvent-based universal lubricant for industry and household use	–	–	colorless, transparent	-40/+50	0.08	For calibration, for switches and mechanisms of any kind. For plastics, elastomers, zippers, screws etc.
 1 L (Bottle), 5 L (Canister), 25 L (Can), 400 ml (Spray can)							
GLEITMO 602	Dry film lubricant for bulk part coating	Water	8.5 - 9.5	colorless, transparent	-40/+80	0.13 - 0.15	Nuts and bolts in the automotive industry. To obtain friction coefficients with small deviation at an elevated level of friction coefficients.
 1 kg (Bottle), 25 kg (Can), 150 kg (Drum)							
GLEITMO 605	Dry film lubricant for bulk part coating	Water	8.5 - 9.5	colorless, shiny	-40/+110	0.11 - 0.12	Fasteners such as screws and nuts in the automotive industry with friction value range according to VDA as well as chipboard screws, sheet metal screws, clamping screws, union nuts.
 1 kg (Bottle), 25 kg (Can), 150 kg (Drum), 1000 kg (IBC)							
GLEITMO 615	Dry film lubricant for bulk part coating	Water	5.0 - 6.0	colorless, matt	-40/+110	0.09	To achieve low coefficients of friction in screw connections, avoid seizure in stainless steel screw connections, achieve low forming torques in thread-forming screws.
 1 kg (Bottle), 25 kg (Can), 150 kg (Drum)							

FUCHS Special Applications Coatings

Product name	Description	Thinner	Solids	Binder	Color	Temperature range [°C]	Applications
Solid Film Lubricants							
GLEITMO SFL 9560	Thermosetting, white PTFE solid film lubricant	GLEITMO 950 V	PTFE	organic	white	-70/+140	Lifetime lubrication on metallic materials at medium and high pressures, slow sliding speed and for emergency lubrication. Good corrosion protection. Application for adjusting mechanisms (spindles and slide rails) or machine elements.
	1 kg (Tin)						
GLEITMO SFL 9563	Thermosetting PTFE solid film lubricant with molybdenum disulfide	GLEITMO 950 V	PTFE, MoS ₂	organic	dark grey-black	-70/+180	Lifetime lubrication on metallic materials at medium and high pressures and slow sliding speeds as well as for running-in lubrication on highly loaded components. Good corrosion protection. For example, lubrication of adjustment mechanisms (levers, spindles and slide rails) or machine elements.
  	1 kg (Tin), 5 kg (Bucket), 30 kg (Hobcock)						
GLEITMO SFL 9680 K1	Three-component solvent-based solid film lubricant - main component	META-BLANC V901	Poly-siloxane	inorganic-organic	colorless transparent	-70/+180	Dry lubrication of elastomers. Significantly facilitates the assembly of components due to very low assembly forces.
  	1 kg (Bottle), 5 L (Bucket), 30 L (Hobcock)						
GLEITMO SFL 9680 K2	Crosslinking component for three-component solid film lubricant	META-BLANC V901	—	—	colorless transparent	-70/+180	
	100 ml (Bottle), 1 L (Bottle)						
GLEITMO SFL 9680 K3	Curing catalyst for three-component solid film lubricant	META-BLANC V901	—	—	—	-70/+180	
	100 ml (Canister), 1 L (Can)						
GLEITMO SFL 9680 K3 TF	Curing catalyst for three-component solid film lubricant, tin-free	META-BLANC V901	—	—	—	-70/+180	
 	100 ml (Canister), 500 ml (Bottle)						
GLEITMO RLC 3000	Thermosetting PTFE solid film lubricant	Water	PTFE	organic	colorless matt	-70/+250	Dry lubrication of a wide variety of material combinations of elastomers, plastics, metals
  	1 kg (Bottle), 5 kg (Bucket), 25 kg (Hobcock)						

FUCHS Special Applications

Coatings

Product name	Description	Carrier	Color	Applications
Additives for Solid Film Lubricants				
GLEITMO 920 V 	Thinner for solid film lubricants 5 L (Canister)	Solvent	colorless	See PI of respective solid film lubricant
GLEITMO 950 V 	Thinner for solid film lubricants 1 L (Can), 5 L (Canister)	Solvent	colorless	See PI of respective solid film lubricant
GLEITMO 9540 V  	Thinner for solid film lubricants 1 L (Bottle), 5 L (Canister)	Solvent	colorless	See PI of respective solid film lubricant
METABLANC V 901  	Thinner for solid film lubricants 5 L (Canister), 200 L (Drum)	Solvent	colorless	See PI of respective solid film lubricant
GLEITMO 1992 V  	Defoamer 1 kg (Bottle), 5 kg (Bucket)	Water	–	For foam reduction in GLEITMO Coating Baths
GLEITMO HMP Cleaner  	Cleaner for dry HMP films 1 kg (Bottle), 5 kg (Bucket), 25 kg (Can)	Water	colorless	Removal of GLEITMO 605, 615 and other GLEITMO films
GLEITMO Colour BL 01 	Black dye concentrate for water-based solid film lubricants 100 g (Bottle), 1 kg (Bottle)	Water	black	Coloring of GLEITMO water-based solid film lubricants (e.g. GLEITMO RLC 3100, GLEITMO HMP 8420 NF)
GLEITMO Colour BU 01 	Blue dye concentrate for water-based solid film lubricants 1 kg (Bottle)	Water	blue	Coloring of GLEITMO RLC 3100
GLEITMO Colour GN 01 	Green dye concentrate for water-based solid film lubricants 1 kg (Bottle)	Water	green	Coloring of GLEITMO RLC 3100
GLEITMO Colour RD 01 	Red dye concentrate for water-based solid film lubricants 1 kg (Bottle)	Water	red	Coloring of GLEITMO RLC 3100
GLEITMO Colour WH 01 	White dye concentrate for water-based solid film lubricants 1 kg (Bottle)	Water	white	Coloring of GLEITMO RLC 3100
GLEITMO Colour YE 01 	Yellow dye concentrate for water-based solid film lubricants 100 g (Bottle), 1 kg (Bottle)	Water	yellow	Coloring of GLEITMO RLC 3100
UV-Verstärker-Konzentrat  	Additive to enhance UV activity 1 kg (Bottle), 5 kg (Canister)	Water	yellowish	Addition to water-based GLEITMO films (e.g. GLEITMO 605, 615, etc.) to improve visibility under UV light

GLEITMO

Product name	Description	Carrier	Color	Applications
Additives for Solid Film Lubricants				
Farbkonzentrat blau	Blue dye for water-based dry film products	Water	blue	Addition to water-based GLEITMO films (e.g. GLEITMO 605, 615, etc.) produces a translucent blue film as a coating verification
	1 kg (Bottle)			
Farbkonzentrat gelb	Yellow dye for water-based dry film products	Water	yellow	Addition to water-based GLEITMO films (e.g. GLEITMO 605, 615, etc.) produces a translucent yellow film as a coating verification
	1 kg (Bottle)			

FUCHS Special Applications Coatings



Product name	Description	Dyn. visc. at 20 °C [mPas]	Color	Applications
Refractory Industry				
MOLYPAUL 900	Coating for ceramic, refractory materials	> 15000	grey-black	For application by brush, sponge or roller. Fills superficial porosities of ceramic materials and adjusts surface irregularities. Improves the sliding behaviour of ceramic slide plates used in sliding valve systems. Suitable for the use on any ceramic product versions and combinations.
☐ 🪣 📦	1 kg (Tin), 4 kg (Bucket), 20 kg (Hobbock)			
MOLYPAUL 900/50	Coating for ceramic, refractory materials	n/a	grey-black	For application by brush, sponge or roller. Adjusts small surface roughnesses and improves the sliding behavior of ceramic slide plates used in sliding valve systems. Suitable for the use on any ceramic product version and combination.
🪣	5 kg (Bucket)			
MOLYPAUL 912	Coating of rotary valve closing plates	> 5000	grey-black	Apply on cold or hot (up to 200 °C) surface with brush or roller. Fills cracks and other surface defects, reduces surface wear and frictional resistance at the closing plates.
☐	1 kg (Tin)			
MOLYPAUL 919	Coating for ceramic, refractory materials	> 15000	grey-black	For application by brush, sponge or roller. Reduces the surface porosity and adjusts surface imperfections. Improves the sliding behavior of the ceramic slide plates used in mechanical sliding valve systems. Suitable for the use on any ceramic product version and combination.
☐ 📦	1 kg (Tin), 20 kg (Hobbock)			
MOLYPAUL 930	Coating for ceramic materials and mold release agent	500 - 1000	grey-black	Coating agent for spray application. Suitable for use on refractory materials in the steel industry and as a release agent in the non-ferrous casting industry. Shows low friction and reduces the surface porosity of ceramics. Good lubricity, high abrasion resistance and oxidation resistance.
☐ 🪣 📦	1 kg (Tin), 4 kg (Bucket), 12,5 kg (Canister)			

MOLYPAUL

Product name	Description	Dyn. visc. at 20 °C [mPas]	Color	Applications
Refractory Industry				
MOLYPAUL 942 FAV	Coating for ceramic, refractory materials	n/a	grey-black	Pasty coating agent for application with scraper or spatula. Reduces the surface porosity of ceramic surfaces and fills surface imperfections effectively. Based on its reduced shrinking effect it is especially suitable for recycled slide plates and as primer coat prior to a subsequent solid lubricant coating.
	4 kg (Bucket)			
MOLYPAUL 994	Spray coating for refractory surfaces	400 - 800	grey-black	Specially designed for spraying on hot surfaces. Suitable as a release agent for mortar release, slide nozzle links, joint compound surfaces, and as a spray guard for mechanical aggregate parts.
   	1 kg (Tin), 4 kg (Bucket), 12,5 kg (Hobbock), 570 g (Tube + Cleaner)			
MOLYPAUL 750	Release and lubricant coating for casting molds	1000 - 3500	grey-black	Primarily used as a casting release agent by direct application to the inner surfaces of the casting mold. Forms a continuous dry film on the surface. Can be used as a starting aid for the dummy bar in continuous casting.
 	4 kg (Bucket), 20 kg (Hobbock)			
MOLYPAUL 783	Mold lubricant for continuous casting plants	n/a	black	Pasty solid lubricant for application with brush, roller or sponge. Is used to pre-treat molds of continuous casting plants in the iron and steel industry for an initial protection before or during a casting sequence.
	12.5 kg (Bucket)			

FUCHS Smart Services

There's more to lubrication than just oil

FUCHS Smart Services bring far more to the table than “just” a product. Instead, we combine performance fluids, digital technologies and a wide range of services into customized solutions. Solutions that do not only fit your individual processes perfectly but strive for improvement – along every step of the way and beyond.

At the very core of everything we do is a promise of reliability. We move your world – not just to keep things running at all times, but to improve your whole production process. To do so, we constantly look ahead and at the big picture. A holistic approach that encompasses ecological, social and economic aspects.



FUCHS Smart Services

Coolants in Use	208-209
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Small Parts / Accessories	215

FUCHS Smart Services



Product name	Description	Technical data	Advantages
Coolants in Use			
Coolant Combination Test Strips Nitrite/pH	Suitable for the measurement of coolants	- Measuring range pH value: 6.0 – 9.6 - Measuring range nitrite value: 1 – 80 mg/L NO₂- - Package size: 100 measurements - Packaging unit: 5 packs (5 x 100 measurements) - Shelf life: approx. 18-24 months Optional: - Other measurands on request	- Easy handling - Measurement of 2 measured values at the same time possible - Time savings for the weekly TRGS 611 measurement - First tendency in case of problems - Cost-effective combination determination
Digital Refractometer	Suitable for measuring liquids	- Measuring range 0-95 % Brix - Resolution 0.1 % Brix - Dimensions: 120 x 55 35 mm - Weight: 180 g - Packaging unit incl. batteries and storage case Optional: - Pipettes for the application of coolant to the lens	- Easy handling for measuring concentration - Reduction of errors through automatic measurement - Clear display of the Brix value - Automatic temperature correction - Waterproof housing (IP 65)
Handheld Refractometer 0-18%	Suitable for the measurement of coolants	- Measuring range: 0-18% Brix - Scaling: 0.1 - Package size: 1 piece - With automatic temperature compensation Optional: - Handheld refractometer 0-32% measuring range	- Simple measuring instrument, no major training required - Measurement of concentration via Brix measurement (refraction of light) - Can be used with a wide range of metalworking fluids
Dip Slides	Determination of yeasts, fungi, determination of total cell count; suitable for cooling lubricants / quenching medium / water	- Front: Bacteria Determination - Reverse: Determination Fungi/Yeasts Optional: - Incubator for cultivation is recommended for constant temperatures and comparable results	- Simple and cost-effective alternative to laboratory tests for initial indications - Determination of bacteria and fungi/yeasts in one step

Product name	Description	Technical data	Advantages
Coolants in Use			
Coolants - Test Case Compact	Suitable for the measurement of coolants	▪ Dimensions: 330 x 265 x 80 mm (L x W x H) ▪ 1 x Refractometer 0-18% ▪ Measuring strips pH: 7.0 – 14.0 (100 pieces) ▪ Measuring strips water hardness: 0-28 °dH (100 pieces) ▪ Nitrite measuring strips: 0-25 mg/L (100 pieces) ▪ 1 x Digital thermometer -50 ° - +100 °C ▪ 3 x Glass Sample Bottle, 1 x Pipette, Maintenance plan form, Ballpoint pen, Operating instructions Optional: ▪ All parts can also be reordered individually, on request	▪ Simple and cost-effective alternative to laboratory tests for initial indications ▪ All the utensils you need for manual measurement in a practical carrying case ▪ Coverage of TRGS 611 measurement parameters ▪ Safe storage of measuring equipment ensured
MWF Proportional Feeder 1-10 %	Suitable for coolants, incl. filter/wall bracket	▪ Water flow rate: 10-3000l/h ▪ Water inlet pressure: 0.5-6 bar ▪ Dosage adjustable from 1-10% ▪ Material: Housing: Polypropylene, Seal: VF ▪ Max. water temperature: 40° ▪ With by-pass switch (on/off dosing) ▪ Incl. 2.5m suction hose in viscous design 20x27mm Optional: ▪ Drum Adapter PDI 861-M or IBC Adapter PDI861-P ▪ Proportional feeder (0.5-5%) or (0.2-2%)	▪ Robust design and technology ▪ Mobile, low-maintenance equipment ▪ Easy and accurate adjustment of the mixing ratio
Mobile pallet mixing station	Suitable for coolant handling	▪ Drip tray: 200 liters ▪ Flow rate: 10 l/h - 3 m³/h ▪ Concentrate quantity: 0.003 - 300 l/h* ▪ Operation without electr. current ▪ In FUCHS blue ▪ Incl. nozzle, hoses, proportional feeder 0.5-5 % ▪ Bracket for hose reel Optional: ▪ Proportional feeder 1-10%	▪ Robust design and technology ▪ Mobile, low-maintenance equipment ▪ Easy and precise adjustment of the mixing ratio on the machine possible ▪ Fixation lubricant drum ▪ Complete offer incl. hoses
Belt Skimmer Size L	Suitable for the care of coolants	▪ Band width: 50 mm ▪ Immersion depth: 500 mm ▪ Operating voltage: 3-12 V (230 V plug-in power supply) ▪ Flow rate: up to 4 liters / hour ▪ 6 levels adjustable ▪ Mounting: Magnetic base Optional: ▪ Band skimmer size M: immersion depth 250 mm ▪ Belt skimmer size XL: immersion depth 800 mm	▪ Compact design ▪ Easy and quick attachment to the tank ▪ Flexible adjustments via two joints ▪ Can also be mounted at an angle
Mobile Tramp Oil Separator	Air diaphragm pump, coalescing separator, with parking brake	▪ Dimensions: 1000x560x1000 mm (LxWxH) ▪ Suction capacity: 250-450 L/h ▪ Inlet and return of 3 m hose each ▪ Oil tank capacity: 9 L Optional: ▪ Various extraction options available from the tank, e.g. floating or rigid	▪ Robust design and technology ▪ Compact design ▪ Mobile Device ▪ Easy handling of tramp oil due to collection container

FUCHS Smart Services



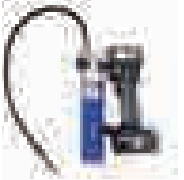
Product name	Description	Technical data	Advantages
Storage			
Spill Tray Barrel	Suitable for 2 x 205 L drums	- Collection volume: 205 litres - Load capacity: 800 kg - Material: steel, galvanized, blue powder-coated - Dimensions: 1236 x 815 x 355 mm (W x D x H) - Weight: 64 KG - With grating, wheelchair accessible Optional: - Other sizes on request	- Space-saving, compact storage of 2 drums - Approved for storage of all hazard classes - Removable gratings for easy cleaning
Spill Tray IBC	Suitable for 1 x 1000 L IBC	- Collection volume: 1000 liters - Load capacity: 2000 kg - Material: steel, galvanized, blue powder-coated - Dimensions: 1350 x 1650 x 710 mm (W x D x H) - Weight: 215 KG - With grating, wheelchair accessible Optional: 3-sided galvanized splash guard - Drip tray with filling trestle - Other sizes on request	- Space-saving, compact storage of 1 IBC - Approved for storage of all hazard classes - Removable gratings for easy cleaning - Add-on parts enable individualization - Easy to move with forklift / pallet truck
Storage Tank Fresh Oil 1,500 L	Storage Liquids >55 °C flash point	- Curb weight: 133 kg - Dimensions: 1630 x 760 x 1860 mm (LxWxH) - Volume: 1500 liters - Usable volume (95%): 1425 liters - Material inside: HDPE - Material: Galvanized steel sheet on the outside - Number of openings: 4 pieces Optional: - Other tanks and accessories on request	- Compact design, also suitable through doors - Double-walled design - Large volume for long-term security of supply
Waste Oil Tank 1,000 L	Filler neck, suction nozzle & suction pipe, vent nozzle, content viewer	- Dimensions: 1135 x 737 x 1820 mm (L x W x H) - Volume: 1000 liters - Material inside: PE - Material outside: sheet steel Jacket & Pallet - Number of openings: 4 pieces - Wheelchair accessible Optional: - Other tanks and accessories on request	- Compact design - Hopper for safe disposal - Double-walled tank - Can be moved if necessary

Product name	Description	Technical data	Advantages
Storage			
Digital Level Monitoring SmartLevel	Suitable for drum / IBC / stationary storage tanks	- Tank material: plastic, GRP, metal - Fittings: 2", 1 1/2", 1" - Adapter for barrel optionally available - Measuring interval: 2h – 24 h adjustable - Data transmission: mobile phone / WLAN - Operation Battery - Maximum tank height: 2m or 3 m Optional: - Different measuring principles depending on the application - GPS functionality possible - Drum adapter for level sensor radar available	- Easy installation and commissioning - No more "running dry" thanks to early alerting - Individual settings possible online - Digital overview of all fill levels in the warehouse - Battery change can be done by yourself
Drum Level Indicator – Manual 60/200 L	Suitable for drums, 60 or 200 L	- Lubricants automotive and industry, fresh oils, used oils - Vertical mounting – no horizontal containers - With FUCHS logo	- Cost-effective solution for manual monitoring - Easy handling and installation - Suitable for standing 60 and 210 L drums

FUCHS Smart Services



Product name	Description	Technical data	Advantages
Handling of Oils and Greases			
Hand Lever Pump 	Suitable for engine oils, hydraulic oil, diesel, heating oil and Antifreeze	- Material: Metal - Telescopic suction tube: 60-205 l - Barrel fitting: 2" - Flow rate: 0.25 l / stroke	- Simplest handling of oil - Manual operation, no electricity/compressed air required - Ready for immediate use
Electric Oil Pump 	Drum pump for 200 L containers	- Dispensing hose NW: 16 x 2,000 - Digital manual flow counter - With digital nozzle 1-35 L/min - Electric pump: 230 V WS with cable and plug - On/off switch - Drum bridge for a secure hold on the container Optional: - Also available with oil gun instead of digital flow meter	- Ready-to-use set - Accurate monitoring by digital nozzle - Fast conveying for larger quantities
Electrical Barrel Pump Set/IBC 	Pre-assembled for drums – tube length 1000 mm; suitable for petroleum products	- Gasket mechanical seal, NBR - Flow rate: max. 80 l/min. - Viscosity: max. 1,000 mPas - Temperature: max. 80 °C - Conveying height: max. 10 m - IP 24, 230 Volt, 50 Hz, 800 Watt - Incl. hose 2m length - Incl. nozzle Optional: - Length 1200 mm suitable for IBC (container)	- Powerful pump for fast handling of media - Complete set – get started right away - Also suitable for higher viscosities - Available for barrel/IBC

Product name	Description	Technical data	Advantages
Handling of Oils and Greases			
Hand Lever Grease Gun 	Hand lever grease gun with TWIN-LOCK system, with wing nut, suitable pumped medium: grease	- Cartridges: 400 g cartridge / 500 ccm loosely filled - Press tube galvanized - Connection thread: M10 x 1.0 - Incl. nozzle tube 140 mm, angled Optional: - Various spare parts available	- Twin-Lock system prevents an apparent supply of the lubrication point, by preventing grease leakage from the piston and causing a back-flow into the the cartridge is excluded - Simple hand lever grease gun for lubrication activities - Robust housing; incl. nozzle tube 140 mm, ready for immediate use
Mobile Pneumatic Lubricator 	Mobile by carriage, suitable for greases up to NLGI 2, high-pressure lubrication gun with professional Z-joint	- Pump 55:1 – capacity: approx. 550 g/min (free outlet and 7 bar inlet pressure) - Riser Ø top 28 mm, bottom 41 mm - Compressed air connection: G 1/4"i - Air pressure: min. 3 to max. 10 bar - Lubrication pressure: max. 400 bar - Air consumption: 230 l/min	- Mobile device by carriage - Efficient work with larger quantities - Suitable for almost all greases - High performance, high operating pressure possible
Stationary Pneumatic Lubrication Unit 	Suitable for greases up to NLGI 2, high-pressure lubrication gun with professional Z-joint	- Pump 55:1 – capacity approx. 550 g/min (free outlet and 7 bar inlet pressure) - Riser Ø top 28 mm, bottom 41 mm - Compressed air connection: G 1/4"i - Air pressure: min. 3 to max. 10 bar - Lubrication pressure: max. 400 bar - Air consumption: 230 l/min	- Efficient work with larger quantities - Suitable for almost all greases - High performance, high operating pressure possible
One-Hand Grease Gun SR 	TÜV tested with GS mark	- Achievable pressure of up to 150 bar in one-handed operation - Cartridge: System Reiner - Incl. armoured hose and gripper coupling - Flow rate: 0.8 cm³/stroke - Connection thread: M10x1 Optional: - Armoured hose and gripper coupling available as spare parts	- Easy and clean lubrication for smaller quantities - Robust design and technology - One-handed operation possible
HP Two-Handed Grease Gun SR 	TÜV tested with GS mark, ergonomic handles for optimal service, residual emptying by means of a special piston shape	- Achievable pressure: 400 bar - Lubrication quantity per stroke: approx. 1.5 cm³ - Cartridge: System Reiner - Coupling connection: M10x1 - Protective cap against contamination of the gripper coupling - Incl. armoured hose and gripper coupling Optional: - Armoured hose and gripper coupling available as spare parts	- Simple, clean and safe lubrication of high-quality machines with long lubrication lines - Large quantities of lubricant and larger volumes of lubricant per stroke possible - Twin-Lock system prevents an apparent supply of the lubrication point, by preventing grease leakage from the piston and causing a back-flow into the the cartridge is excluded
Electric Grease Gun 	For greases NLGI class 000 to 2 (according to DIN 51818)	- Cartridges: 500 g System Reiner / 400 g Pull-Off / Lube Shuttle® - Operating pressure: 400 bar (overpressure valve limited) - Flow rate: approx. 100 g/min - Battery: 18V Li-Ion, 4000 mAh AMP Share - Charging time: approx. 1 h - Incl. hose and SR adapter Optional: - Replacement battery sold separately - Charger available	- System Reiner cartridges can be easily replaced by screw connection - Larger relubrication quantities convenient and fatigue-friendly can be applied - Separate AMP Share battery for alternating operation possible

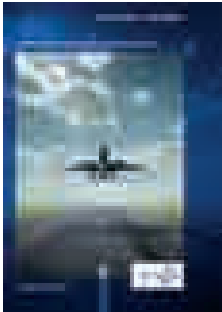
FUCHS Smart Services

Product name	Description	Technical data	Advantages
Handling of Oils and Greases			
Compressed Air Press Grease 	Convenient one-handed operation, controlled fat release by single print	- Cartridges: 500 g System Reiner - Inlet pressure: 2-6 bar (max. pressure peak: 10 bar) - Flow rate: approx. 1 cm³/stroke - Gear ratio: 1:30 - Connection thread: M10x1 - Incl. safety rubber armoured hose - Incl. 4-jaw professional mouthpiece	- Lubrication of machines of all kinds, commercial vehicles and construction machinery - Controlled fat release possible - Suitable for larger lubrication quantities
HD Grease Gun CASSIDA 	For use in the food sector, TÜV tested with GS marks, ergonomic handles for optimal operation	- Achievable pressure: up to 5,800 psi - Lubrication quantity per stroke: approx. 1.5 cm³ - Connection thread: M10x1 - The Twin-Lock system protects the piston from wear and prevents that grease comes out of the piston - Protective cap against contamination of the gripper coupling - Flexible armoured hose for optimum accessibility of lubrication points	- Efficient, clean and safe lubrication of your machines - Also due to long lubrication lines, large quantities of lubricant and large amounts of lubricant per stroke - Easy handling due to the use of SR cartridge with screw cap lubricated with food-grade grease
Central Lubrication Systems Filling System 	Important: Please order coupling plugs separately!	- Cartridges: SR Cartridge - Only for Beka Max lubrication systems with coupling plug - Coupling plug (M20x1.5) Optional: - Filling system for 400g pull-off cartridges	- Easy and fast filling of central lubrication systems with SR cartridges - Simple and energy-saving operation - Secure connection through coupling plug

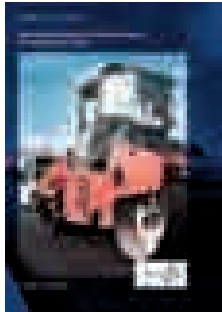


Product name	Description	Technical data
Small Parts / Accessories		
Sample Bottle 250 ml	Suitable for e.g. hydraulic oils, coolants, antifreeze	- Content 250 ml - Packing unit 5 pieces as a package - Incl. lid, sample label, unstamped stamp Optional: - Larger quantities available on request
Sample Bottle 2 L	Suitable for e.g. hydraulic oils, coolants, antifreeze	- Content 2,000 ml - Incl. Lid Optional: - Other sizes on request (e.g. 1 L)
Barrel Key Steel	Opening of sealing caps and drum closures	- Material: galvanized steel - For 3/4" and 2" screw connections
Drum Transport Lifter	Suitable for containers with a capacity of up to 200 litres	- Dimensions 690 x 660 x 1520 mm (LxWxH) - Weight 26 kg - Can be set down to a height of 360 mm
Jug Set 2L/5L	Set consisting of 2L and 5L jug	- With flexible spout - With lid against contamination
Funnel Set	6 funnels, rigid spout	Sizes: Ø 50, 75, 100, 120, 150 and 160 mm
Outlet Nozzle IBC	Suitable for IBC (Greif)	
Outlet Tap for Canister	Can be used for canisters	Opening 50 mm or 60 mm different items
Spout Tap Barrel Cast Iron	Can be used for drums/barrels	- Material cast iron 2" and 3/4" available
Spout Tap Barrel Plastic	Can be used for drums/barrels	- Material plastic, brown 2" and 3/4" available

Industry Brochures



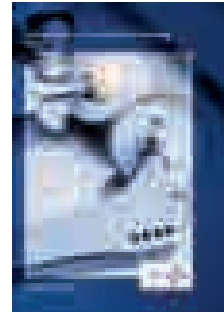
Lubricant Solutions for the Aerospace Industry



Specialty Lubricants and Release Agents for Asphalt Processing



Lubricants and solutions for all applications of the cement industry



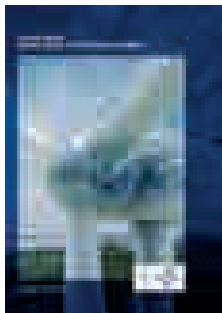
Lubricant Solutions for the Medical Technology



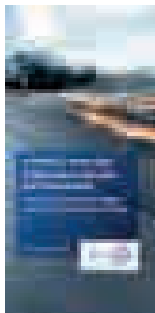
Specialty Lubricants for Railway Traffic



Specialty Lubricants for Forging Industry



Special Lubricants for Wind Power Plants

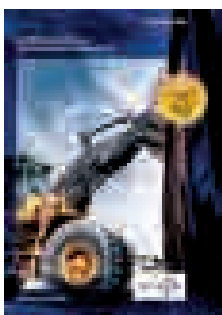


Lubricant solutions and related products for e-mobility concepts

Product Brochures Industrial Oils



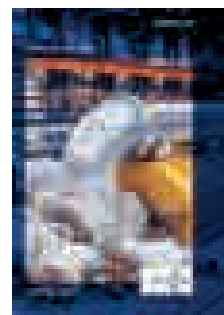
Hydraulic Fluids



High Performance Hydraulic Oil – RENOLIN Xtreme Temp



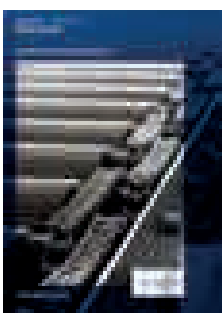
Gear and Circulating Oils



Lubricants for Turbines



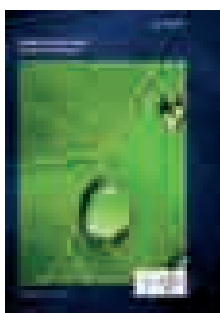
Compressor Oils



Industrial Chain Oils and Sprays

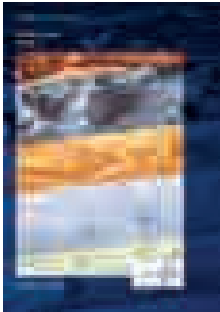


Refrigeration Oils

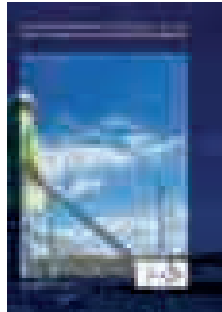


Rapidly Biodegradable Industrial Lubricants

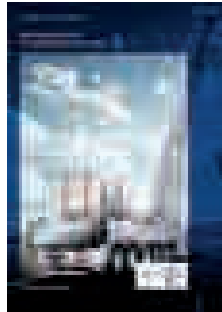
Product Brochures Lubricating Greases / Pastes



Product Group Pastes



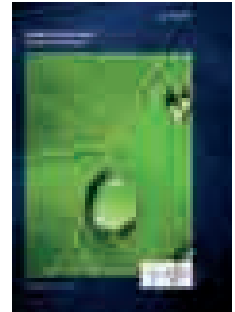
Service Cartridge for easy and safe Relubrication of Wind Turbines



Specialty Lubricants for Mobile Telescopic Cranes



SYSTEM REINER – Safe and Clean Lubrication of your Machines

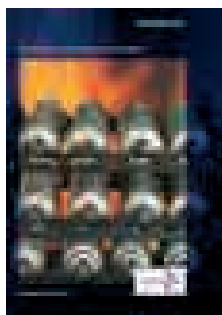


Rapidly Biodegradable Industrial Lubricants

Product Brochures Metal Processing Lubricants



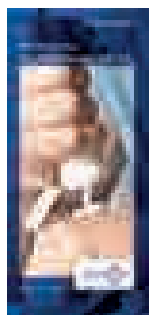
Water-miscible and Neat Cutting Fluids



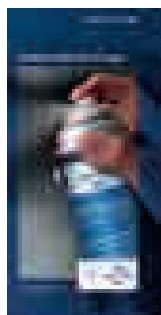
Quenching Oils and Polymer Quenchants



Cleaner for Metal Processing



Skin Protection, Skin Cleansing and Skin Care

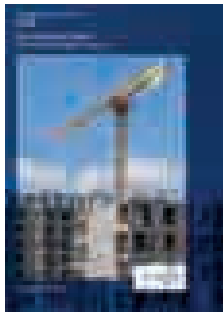


Lubricants in spray cans



Rapidly Biodegradable Industrial Lubricants

Product Brochures Special Application Lubricants



Concrete Release Agents for the Construction Industry



Lubrication, Maintenance, Service for Open Gears



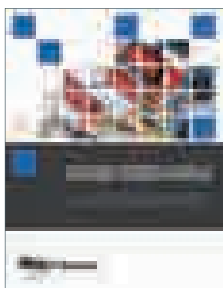
Solid Film Lubricants – the Dry Lubrication



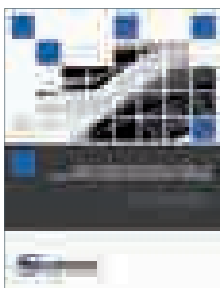
Solid Film Lubricants for Elastomer Products



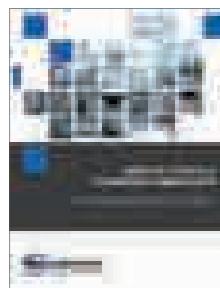
Solid Lubricants for the Iron, Steel and Refractory Industry



Nye Lubricants – The Design Engineer's Guide to Selecting a Connector Grease



Nye Lubricants – The Design Engineer's Guide to Selecting a Motion Control Grease



Nye Lubricants – Medical Device & Equipment Lubrication

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Note

The information contained in this product information is based on the experience and know-how of FUCHS LUBRICANTS GERMANY GmbH in the development and manufacturing of lubricants and represents the current state-of-the-art. The performance of our products can be influenced by a series of factors, especially the specific use, the method of application, the operational environment, component pre-treatment, possible external contamination, etc. For this reason, universally-valid statements about the function of our products are not possible.

Our products must not be used in aircraft or spacecraft. Our products may be used in the manufacture of components for aircraft or spacecraft if they are removed without residue from the components prior to assembly into the aircraft or spacecraft.

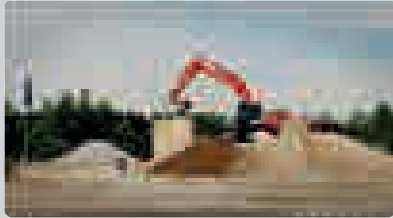
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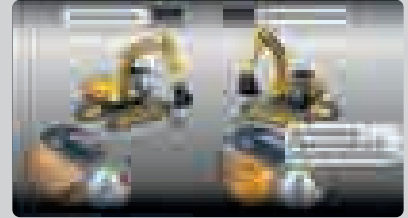
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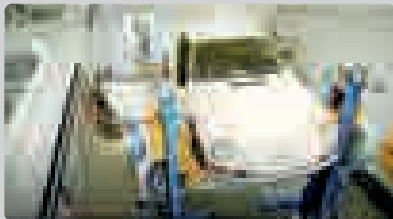
Videos



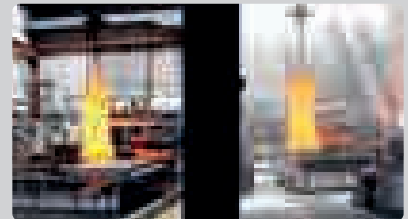
Hydraulic oil RENOLIN Xtreme Temp in the field test



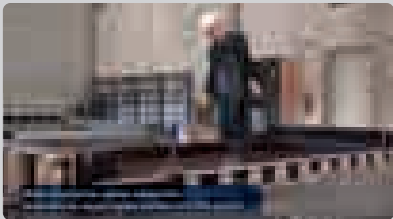
The high efficiency of RENOLIN Xtreme Temp



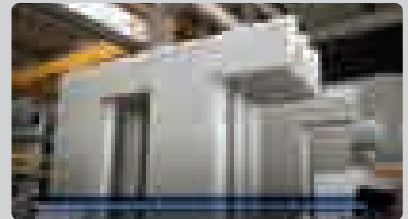
Cavity conservation in practice – ANTICORIT CPX®



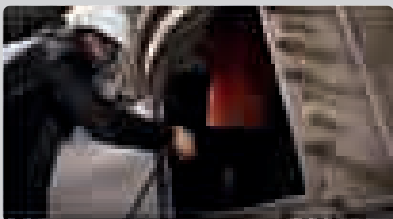
Comparison of flaming behaviour – universal high-performance quenching oil THERMISOL QH 35 MC (right in the video)



Application of concrete release agents



SOK – Concrete release agents



BETONEX – Mixer protection



FUCHS
LUBRICANTS
GERMANY at YouTube

Innovative lubricants need experienced application engineers

Every lubricant change should be preceded by expert consultation on the application in question. Only then the best lubricant system can be selected. Experienced FUCHS employees will be glad to advise on products for the application in question and also on our full range of lubricants.

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