



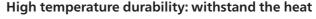
Modern plastic windows have long been more than "just" white: Current frame profiles come in a wide range of colours and surface designs - matching the respective architectural style. The production landscape has also changed: Profile production and window construction are largely automated; profile processing, machine assembly and parts logistics are integrated into highly efficient fully networked process chains.

The design of the protective film is critical for the assurance of quality. It must meet many requirements on a wide variety of surface structures. It must support the individual material and manufacturing processes and take into account specific requirements during processing, window construction and final assembly. Optimum performance and a decisive contribution to value retention is guaranteed.

EFFECTIVE SURFACE PROTECTION HAS MANY FACETS.

Profile processing: effective protection is value retention

Immediately after extrusion the upper and lower faces of the plastic profiles are covered with protective film and conveyed to the cutting station. The protective film must develop its full adhesive power within the shortest possible timescale to guarantee that it is cleanly cut through during the sawing process, does not lift off or stick to the machine bed and is not removed from the surface. Failure of the protective film would mean that subsequently the profile surfaces would remain unprotected and vulnerable to scratches resulting in potential rejects. Stable and reliable film adhesion is also essential in subsequent processing steps such as drilling, cutting and deburring, essential to effectively protect the profile surfaces.



When the frames are welded in window construction the protective film is subjected to extremely high temperatures which the adhesive system and carrier film must reliably withstand. That is to say: A protective film must not be deformed during the welding process, nor must it burn away or become detached from the surface to be protected. Heat-induced adhesive transfer, residues in the welded corners and on the profile surfaces must also be avoided.

Efficient production processes: Assured!

Efficient manufacturing processes are significantly important to the economical production of profiles and windows. Highly engineered protective films make a decisive contribution to this. They fit smoothly into the customer's own material flows and ensure high productivity due to the superior sliding properties, which allow computer-aided transit systems and automated feeding and stacking systems to effortlessly supply any processing machines.



Residue-free removal: under all conditions

A flawless profile surface is crucial for a good appearance. This is one reason why protective films must always be able to be removed at any time cleanly and without residue, whether during the manufacturing process, installation or following the completion of a comprehensive construction project. That is why high-performance protective films are characterized by excellent weather resistance amongst other things. No matter whether they are exposed to heat, cold, moisture or strong UV radiation, they have excellent removal properties and can be removed without leaving any adhesive residue or other traces. They therefore increase efficiency by effectively removing the need for any subsequent cleaning.

Recycling: supporting the environment

Recycling of plastic windows is common practice as the resulting regrind can be reused for the production of new plastic profiles. Protective polyethylene films can be recycled and granulated together with these profiles thereby making a significant contribution to greater sustainability and effective resource conservation.





EXCELLENCE IN FILMS, these are more than just words.

As a protective film specialist, we focus on what we do best: temporary protection solutions for your profile surfaces. No matter whether it is a matter of protecting foil-laminated, lacquer-finished or classic white plastic profiles – we offer you the perfect solution for every requirement.



DIVERSE REQUIREMENTS. VERSATILE SOLUTIONS.

We offer a wide range of films with different product designs which always guarantee you a perfect solution for your surface, whether during profile extrusion, window construction or assembly.



THE ADVANTAGES AT A GLANCE:

- **Suitable for any surface finish.** Wide range of applications through the use of adhesive systems based on acrylic and natural rubber.
- **Optimally adapted.** Exactly the right level of protection your application requires as a result of different adhesive strengths, film thicknesses and other unique features.
- Temperature resistant. Made to withstand high temperatures specifically during the welding process in window construction.
- **Process optimized.** As a result of slide-optimized film designs, the protective films fit perfectly into your processing systems.
- Removed without a trace. Perfect removal properties such as tear
 resistance and residue free removal guarantee a flawless appearance
 of your profiles every time, whether during processing, under varying
 temperature conditions or under strong UV radiation.
- Fully recyclable. Polyethylene-based protective films and profiles can be recycled together to help conserve resources and protect the environment.



Our service to you: We are able to provide all our protective film solutions customised with your individual design; your brand, your logo, your processing instructions; you decide!

By using state-of-the-art printing technologies we guarantee you a high-quality print image at all times leaving customers with an optimal presentation of their product. POLIFILM can design a film utilising various printing technologies, from Top Printed with specific release coats, Trap Printing or Over Laminated Printing. All our films can be printed with up to three colours.



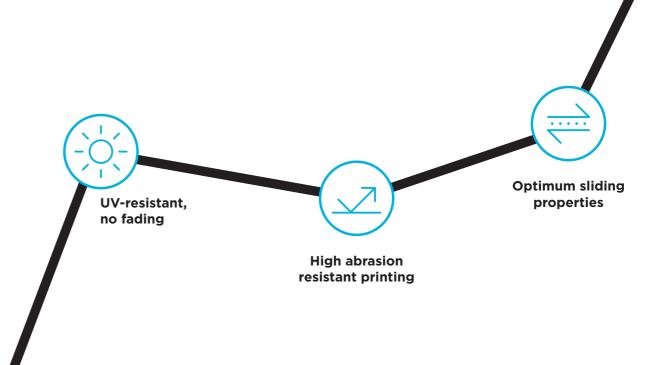
PROCESS-SAFE. **INK TRANSFER HAS NO** CHANCE.

Our experts at POLIFILM have developed special solutions that specifically avoid ink transfer. They effectively protect your profiles, conveyor belts and production equipment from contamination and thus reduce the time and personnel required for cleaning, thus maintaining the efficiency of your lean manufacturing processes.



THE ADVANTAGES AT A GLANCE:

- Highly abrasion-resistant release lacquers. Protect the print image and also ensure superior sliding properties of the film.
- Over-laminated print with secondary PE film. 100% resistant to abrasion. Offers excellent UV resistance and protection against fading. Reliably prevents the undesired "ghosting" effect and guarantees optimum sliding properties as well as good solvent resistance.





The POLIFILM film range for classic white plastic profiles offers you high-performance protection during profile extrusion through to the manufacture and installation of windows. Different adhesive systems are available as well as a range of film thicknesses, colours and other performance enhancing features to ensure our film solutions meet your processing requirements and protect your surface with pinpoint accuracy.

ACRYLIC-BASED ADHESIVE SYSTEMS

TRANSPARENT PROTECTIVE FILM SOLUTIONS

Protective films using acrylic adhesives are a proven solution for the protection of all types of plastic surfaces. Whether on smooth surfaces or structured profiles, our formulation offers excellent adhesion properties throughout the entire manufacturing process as a result of the adhesive that bonds perfectly with the surface. Even with these excellent adhesion properties, these films can be removed without leaving any residue. In outdoor use, they also reliably protect your profile surfaces from UV exposure for up to six months.

Excellent Resilience.

Our High Strength films offer extreme protection even when subjected to high mechanical loads such as sawing. These "HS Films" have excellent puncture resistance and tensile strength which allow for reduced thicknesses to be used without compromising protection. Our acrylic based protective film solutions are particularly temperature resilient. Even at high processing temperatures they guarantee the required adhesive strength and shear resistance.

Full visual control.

Thanks to their transparency, these protective films allow a quick and precise visual inspection of the profile surface guaranteeing efficient quality assurance throughout the entire production process.



NATURAL RUBBER-BASED ADHESIVE SYSTEMS

PROTECTION IN BLACK AND WHITE OR PURE WHITE

When manufacturing and processing classic white plastic profiles, protective films with natural rubber-based adhesive formulations offer highly effective protection and excellent adhesion particularly when sawing, drilling and welding. They are proven to safely protect the surface integrity of brushed plastic profiles which remains intact even when the film has been removed. The specially developed backing film and adhesive system formulations also guarantee outstanding weather resistance.

Powerful. The combined solution.

Highly functional, multilayer protective films from POLIFILM PROTECTION are characterized by their special light transmission properties which withstand extreme UV exposure. They guarantee excellent residue-free removal at all times, especially when used outdoors. Due to their lighter coloured top side, these Black and White protection films deliver excellent visual impact to showcase your print at its best.



WENT WOMEN TO SERVING THE SERV

Extra safe. The pure white version.

Pure white protective films are also available combining many advantages. Users benefit from their reliability to eliminate the occurrence of black residues as this is effectively prevented during the corner welding of the window frames. The films are extremely UV-stable and outdoor exposure is possible for up to twelve months. Pure white protective films are particularly easy to recycle and can be re-granulated along with white PVC. The high-quality white colour in our film makes every print shine.



Modern windows are available in many colour variations and decors – from fashionable plain colours to smooth or structured surfaces, natural-looking wood finishes to an extravagantly brushed metallic appearance.

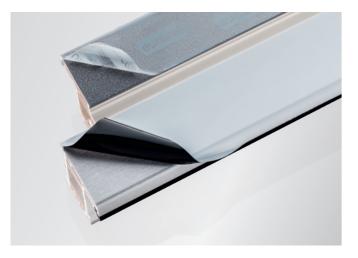
Highly functional surface protection is assured so that the integrity of your finish is preserved. POLIFILM PROTECTION offers you the widest range of protective film solutions, perfectly adapted to the needs of the most diverse decors, processing methods and applications.



SUITABLE FOR ANY SURFACE FINISH:

Protective film solutions for different gloss levels, surface structure and embossed finishing. POLIFILM protective films cover, for example:

- Smooth surfaces
- Fine to medium embossed structure
- Speciality finishes such as deep embossed surfaces, extreme matt finishes and detailed grinding and sanding enhanced surfaces



Effective protection during processing.

Optimum protection for your decorative surface: The use of different adhesive systems based on acrylic or natural rubber with exactly defined adhesive strength provides POLIFILM protective films with exactly the adhesive properties required for your application. Different thicknesses are available as well as additional performance features on request - for example, better puncture resistance, tensile strength or temperature resistance.

Process efficiency and processing reliability.

Properties for all your processing needs: POLIFILM protective films are characterised by superior sliding properties contributing significantly to the efficiency of your production processes. Thanks to their excellent release properties they can also be removed in one go without leaving any residue meaning subsequent cleaning is avoided.

Transparent protective films in particular prove to be process optimisers in the production and processing of foil laminated profiles: Colours and decors are quickly and reliably identified; confusion is effectively prevented. In addition our transparent films allow the surface to be inspected quickly and easily. Defects can be immediately detected saving time during quality control thus reducing rejection rates.

White protective films are equally suitable for the protection of white and foil laminated plastic profiles enable particularly efficient inventory management; one film for all!

Optimum protection for outside use.

No matter whether the standard version or extra-strong version for long term outside use, POLIFILM protective films offer the UV resistance you need precisely matched to your application, for guaranteed residue free removal under any operating conditions.



The black layer giving this film its extremely opaque underside makes it highly UV-resistant, whilst it's white top side gives it excellent printability. A premium protection solution for your surfaces.

COMBIFILM



PURE WHITE

If a particularly high-quality appearance and excellent UV resistance are required, this film is the optimal choice. The film and adhesive formulations used are particularly UV-stable. This protective film can remain on the laminated profiles for up to twelve months when used outside whilst still maintaining the high-quality appearance your brand demands.

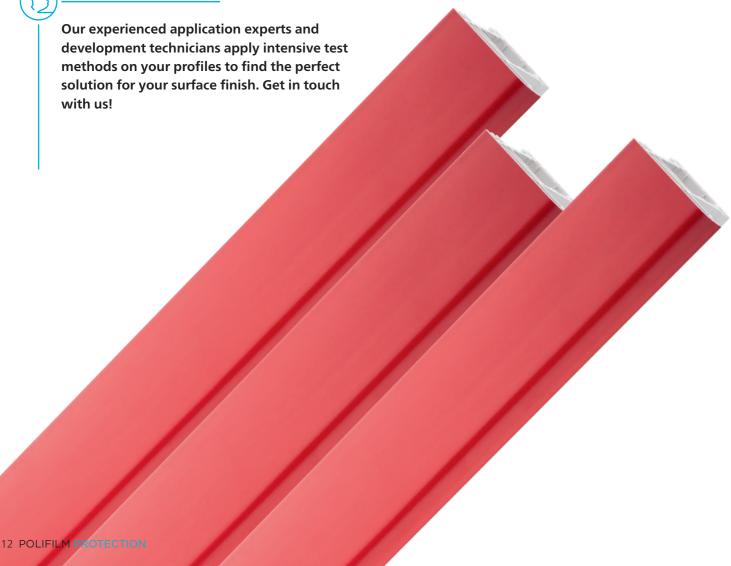
TRANSPARENT

These film solutions combine perfect visual control with reliable UV resistance. The standard version offers a UV resistance of three to six months whilst the high-performance variants have a special UV stabilisation for outside use, for up to twelve months.

LACQUER-FINISHEDPROFILE SURFACES

In addition to the well-known and proven decorative foils, lacquered finished plastic profiles are being increasingly used. Their design spectrum is diverse and includes finishes from ultra matt to high gloss as well as coloured textured coatings or paintwork creating special metallic effects.

Individual solutions are required here, as specific coating formulations and customer-specific processing parameters play a key role in the selection of the optimum protective film. Adhesive and carrier film properties must be precisely matched to customer requirements in order to achieve reliable surface protection and to ensure that the film can be removed quickly and without residue or damaging the applied coating.



YOUR SOLUTION. TAILOR-MADE.

The requirements for protective films are extremely diverse and vary from application to application. Accordingly, an optimum protective film solution must be tailored to each individual application.

At POLIFILM PROTECTION we know how to provide these exacting solutions. We make sure that the interaction of all protective film components is ideally matched to your product. Our specialists select carrier films, adhesives, printing inks and release coatings with the appropriate properties and combine them into a tailor-made, high-performance product that harmonises with the material and surface structure to meet your requirements in terms of usage duration, weathering, UV resistance and resistance to mechanical stress.

Do you need a protective film with particularly high puncture resistance? Or one with extra high UV stability? A special film colour? Or everything at once? No problem! Our team is on standby ready with advice and support waiting to find your perfect solution.

Requirement

STABILITY

Precise resistance for ideal removal properties in all weather conditions and for the desired duration of use.

Requirements

MECHANICAL LOAD

Exactly the right film thickness and mechanical properties to meet the demands of the entire process in terms of puncture resistance, tensile strength and abrasion resistance, coupled with perfect sliding properties.



Requirements

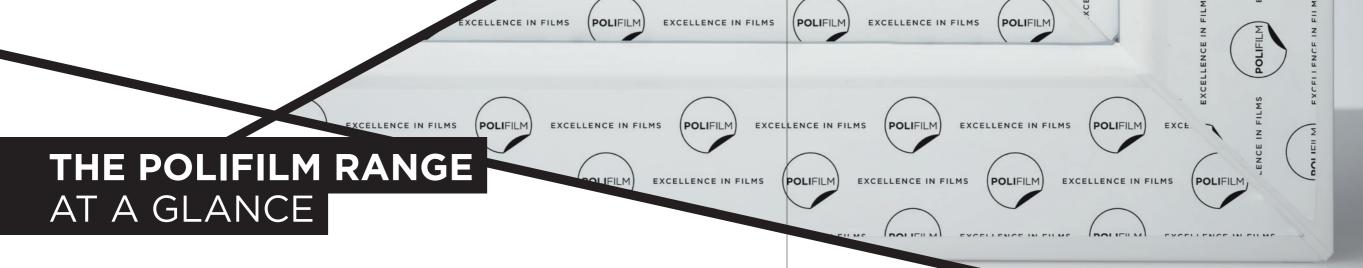
APPEARANCE

Optimal film colour and optimum print quality perfectly matched for a seamless process integration and brand presentation.

Requirements

SURFACES

Precise selection of adhesive system, formulation and adhesive strength for that essential adhesion level.



The POLIFILM film range guarantees you optimum protection during profile extrusion, window production and installation. Whether for classic white or surface enhanced plastic profiles, a neutral preference or individual print, you will find the perfect film solution for your surface at POLIFILM.

PROTECTIVE FILMS FOR PLASTIC PROFILES

PROVEN FILM SOLUTIONS AT A GLANCE

CHARACTERISTICS OF THE FILM						PROFILE SURFACE			
PRODUCT TYP	ADHESIVE TYP	ADHESIVE STRENGTH	FILM THICKNESS (μm)	COLOUR*	UV RESISTANCE (month)	PVC WHITE	DECOR FOIL SMOOTH	DECOR FOIL STRUCTURED	DECOR FOIL VERY STRUCTURED MAT
PF11 P	Acrylic, solvend	low	50	TR	3	•			
PF12 P	Acrylic, solvend	medium	50	TR	3	•	•		
PF12/4 D	Acrylic, water-based	medium	55	TR	6	•	•		
PF12/4 D HS PV1	Acrylic, water-based	medium	45	TR	6	•	•		
PF22/2 WP	Acrylic, water-based	medium	33 /40	BL	6	•	•		
PF22/4 WP	Acrylic, water-based	medium	50	BL	6	•	•		
PF62/4 D	Acrylic, water-based	medium	45–70	W	6	•	•		
PF562 C	Natural rubber	medium	55–100	B/W	12	•	•		
PF62 C UV	Natural rubber	medium	55/60	W	6	•	•		
PF63 C/N/HS UV	Natural rubber	medium/high	60	W	6	•	•	•	
PF563 C/N	Natural rubber	medium/high	65/70/80	B/W	12	•	•	•	
PF15 D MA	Acrylic, water-based	high	55	TR	12			•	
PF564 C/N/HS COMBI	Natural rubber	high	65	B/W	12			•	
PF564 C	Natural rubber	high	80/100	B/W	12			•	•
PF14 WP	Acrylic, water-based	high/very high	40–60	TR	6			•	•
PF565C	Natural rubber	very high	80	B/W	12				•
PF569	Acrylic, solvent-based	very high	80	B/W	6				•

^{*} W = White; B/W = Black/White; TR = Transparent, BL = Blue



YOUR VALUES. OUR PROTECTION. POLIFILM PROTECTION

FAMILY-OWNED. GLOBALLY RECOGNISED.

YOUR PARTNER FOR TEMPORARY SURFACE PROTECTION FILM SOLUTIONS

When carrier film expertise is combined with specialised adhesive systems, when customers' applications and manufacturing processes are the focus, the results are tailor-made solutions for temporary surface protection featuring exceptional benefits.

POLIFILM PROTECTION has been delivering high quality temporary protection film solutions for over 40 years. Protection that is expertly designed, highly effective which creates real added value. Protection that will take your products safely through production processing, manufacturing and other associated operations delivering satisfaction throughout.

Knowing what's important in protection and service.

As a process partner and specialist in co-extrusion, adhesive development and coating, within our wide range of self-adhesive and adhesive coated film solutions, we will find the ideal protection film for your needs.

Understanding our customers demanding technological processes with differing surface materials is just as much part of our day-to-day business as providing excellence in service. Local presence, market leading flexibility, assured product availability and immediate delivery are integral to our service and a direct result of our global philosophy.

POLIFILM PROTECTION is part of the family owned internationally represented POLIFILM Group: A leading manufacturer of polyethylene based film solutions. No matter where you are located, with our global network of production, sales and distribution locations, our continuously evolving expertise is always on hand.

Expertise in films. Expertise in adhesives. Expertise in the ideal protective solutions.

A protection film is only as good as the interaction of its components. We maintain our quality standards by using only the highest functionality in carrier films and adhesives. We use three distinct adhesive systems: Firstly, our own Natural Rubber adhesive which is made in-house, secondly, our Water based Acrylic adhesive and finally our Solvent based Acrylic adhesives; all of which enable us to cover each and every application. Our carrier films and their adhesive systems are precisely selected and matched to create a film with properties that meet the requirements of the finished product and the demands of the production process.



GERMANY

POLIFILM PROTECTION
DEUTSCHLAND GMBH & CO. KG

Handelsstraße 12 D-42929 Wermelskirchen T: +49 2196 88 20 80 F: +49 2196 8 82 08 99 Email: info-pfp@polifilm.de www.polifilm.de

AMERICA

HEADQUARTER| MIDWEST

POLIFILM AMERICA INC.

One Elgiloy Drive
US-IL 60140 Hampshire
T: +1 8476 83 14 14
F: +1 8476 83 77 77
Email: info@polifilm.us
www.polifilmamerica.com

ITALY

POLIFILM ITALIA S.R.L

Via Filippo Brunelleschi, 7 IT-44020 San Giovanni di Ostellato (FE) T: +39 0533 5 73 69 F: +39 0533 5 75 42 Email: info@polifilm.it www.polifilm.com

AMERICA NORTHEAST

POLIFILM AMERICA INC.

Keystone Drive 170, US-PA 18936 Montgomeryville T: +1 2156 43 62 30 F: +1 2156 83 62 53 Email: info@polifilm.us www.polifilmamerica.com

FRANCE

POLIFILM FRANCE SAS

ZA la Condamine, 2 chemin des senteurs FR-26400 Aouste sur Sye T: +33 475 25 41 44 F: +33 475 40 68 93 Email: info@polifilm.fr www.polifilm.fr

AMERICA SOUTHEAST

POLIFILM AMERICA INC.

300 TownPark Dr NW, Suite 140 US-GA 30144 Kennesaw T: +1 6782 90 17 78 F: +1 6782 90 17 58 Email: info@polifilm.us www.polifilmamerica.com

OPTIMUM PROTECTION DELIVERED TO YOU

FROM OUR GLOBAL NETWORK

Temporary protection film solutions where you need them, when you need them, with all-round service and outstanding quality you expect. This is the mission we live up to each and every day.

Our global network of production locations, sales branches with integrated service and logistics centres alongside more than 20 well established distribution partners, help us to achieve this. POLIFILM PROTECTION is always nearby and able to offer you the global flexibility of our reliable family-owned company.

SPAIN

POLIFILM PROTECCIÓN IBÉRICA S.A.

Polig. Ind. Ca n' Oller c/ Valencia, 17-19 Nave 3 ES-08130 Santa Perpetua De Mogoda (Barcelona) T: +34 9371 9 43 43 F: +34 9371 8 18 74 Email : info@polifilmiberica.es

MEXICO

www.polifilm.com

POLI-FILM MEXICO S. DE R.L. DE C.V.

Carretera Miguel Aleman Km14.2 Bodega 10 MX-Apodaca NL 66630 T: +11 5281 10 86 18 00 F: +11 5281 10 86 18 01 Email: ventas@polifilm.mx www.polifilmamerica.com

UNITED KINGDOM

POLIFILM UK LIMITED

7 Brunel Close
Drayton Fields Industrial Estate
GB-Daventry NN11 8RB
T: +44 1327 87 60 71
F: +44 1327 30 00 05
Email: sales@poli-film.co.uk
www.polifilm.com/uk

TURKEY

POLIFILM PROTECTION
TURKEY PLS. SAN. TIC. LTD. ŞTI.

Barbaros Mah. Mor Sümbül Sok. No. 5 Kat. 7 Daire 211 Deluxia Palace TR-Batı Ataşehir / Istanbul T: +90 2165 10 10 80 Email:info@poli-film-turkey.com www.polifilm.com

ISRAEL

POLEG PLASTICS INDUSTRIES (1998) LTD

Kibbutz Gevim
D.N HOF Ashkelon
IL-7916500
T: +972 8680 23 60
F: +972 8680 21 63
Email: info@polegpf.com
www.polifilm.com

CHINA

POLI-FILM SHANGHAI CO. LTD

Room 2105-2106, Zhonggeng Global Creative Center T2, Lane 166 Minhong Road, CN-Minhang District, Shanghai T: +86 21 51099518 F: +86 21 54376980 Email: sales@polifilm-china.com www.polifilm.com

AUSTRALIA

POLIFILM AUSTRALIA PTY LIMITED

9 Sammut Street, Smithfield AU - NSW 2164 T: +61 2 9729 0857 F: +61 29609 2375 Email: duncan@polifilm.com.au www.polifilm.com.au

SOUTH AFRICA

POLIFILM SOUTH AFRICA
(PTY) LTD

Culverwell Park
139 Houtbaai street
Elandshaven EXT 4
ZA-1401 Germiston
T: +2711 7 08 10 41
F: +2711 8 69 16 68
Email: reception@polifilm.co.za
www.polifilm.com

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POLIFILM PROTECTION GMBH

Alte Papiermühle Hämmern 10 51688 Wipperfürth Germany

Member of the POLIFILM Group

Tel. +49 (0) 2267 697 0 Fax +49 (0) 2267 697 4101 Email: info-pfp@polifilm.de

www.polifilm.com