

**KARLE & RUBNER**

# Decks 2024



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## GLOSSARY .....212

Illustrations in the catalogue may still correspond to previous models, as we reserve the right to make changes in the interest of product improvements at any time. Cover: Ceramic patio tile Athos Rock anthracite.

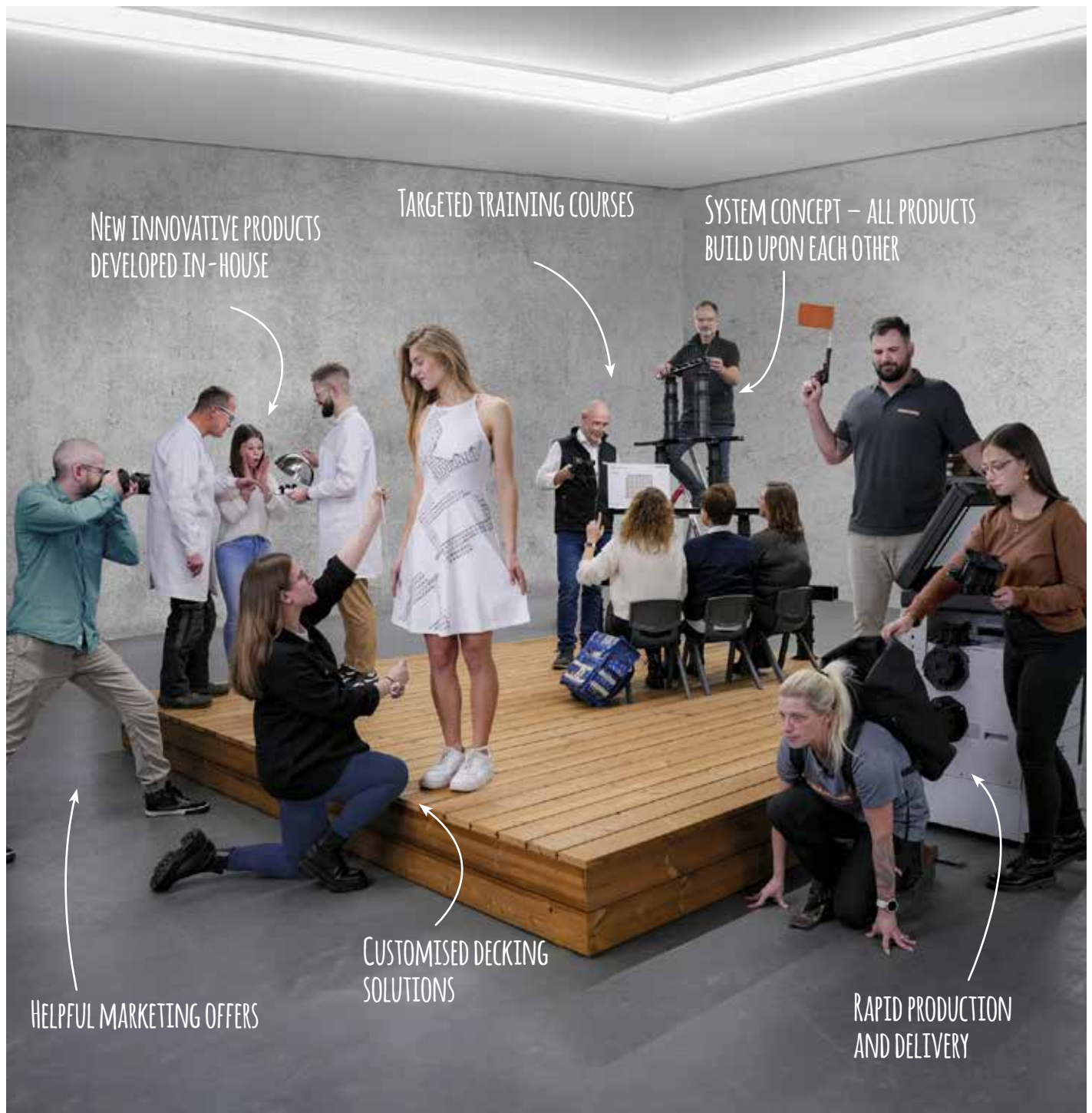


# Welcome to the world of professional patio construction

This year we have again expanded our catalogue with new products and innovations for professional decking solutions. With the help of our in-house product development team we are once again providing you with important support in connection with decking construction that is compliant with current standards. The focus of our product development continues to be the system concept of our installation systems, in which the products build upon each other and thus ensure a particularly user-friendly installation. Simple and quick.

Our services, such as customised CAD planning, targeted training courses and helpful marketing offers, additionally support the specialist trade in the implementation of your patio projects.

We hope you enjoy browsing and reading our latest catalogue and that you find it inspiring.





## INNOVATIONS 2024

Once again, we are delighted to present to you new items in this catalogue.

This includes a number of innovations in the accessories category such as the Flex support, the KL cross connector and the wind load carrier deep.

In addition, we have added new ceramic patio tiles to the existing product range and our facing holder as well as our drainage system have been supplemented with new variants.





## KL cross connector

Quickly form a torsion-resistant and compliant substructure with the KL cross connector. This enables a time saving of over 30% compared to the conventional installation of substructures.



## Flex support

The variable Flex support enables boards of individual lengths to be easily laid without additional substructure. This opens up completely new options to design the laying pattern without major installation effort.



 Wind load carrier  
deep Page 111

## Wind load carrier deep

A supplement to the previous wind load carrier for roof terraces with particularly high wind suction loads. Tile support for concrete paving slabs up to 50 mm thick.



 Facing holder 239  
Page 170

## Facing holder 239

The facing holder 239 enables the problem-free fixing of side cladding of patio decking with higher construction heights.



 Drainage profile  
100 mm Page 165

## Drainage profile 100 mm

The new 100 mm drainage profile is suitable for the junction with facades and can be used wherever a drainage width of 150 mm is unnecessary to comply with the specialist rules.



 Drainage profile  
Pro Page 166

## Drainage profile Pro

An alternative design to our standard drainage profiles. Especially suitable for splash protection and rainwater drainage.





## New ceramic tiles „Athos Rock“

Our range of ceramic tiles is being expanded with a new series in four stylish colour variants. The large-format Athos Rock tiles make an impression not only with their colours but also through their size of 60 x 120 cm.



 New ceramic  
Page 70

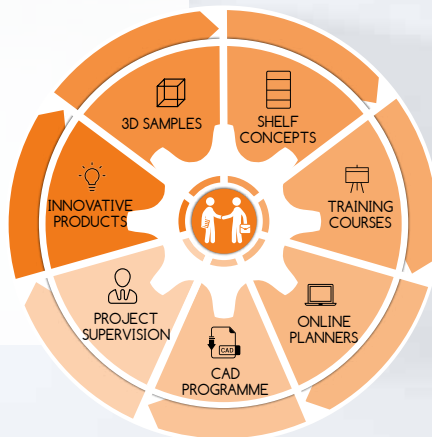
## OUR SERVICES

The strengths of our ranges are rooted in the system concept: Everything is aligned starting from the products to all sales support services.

When developing our sales systems, the salesperson and the installer are always in the centre of our thoughts. We want to enable them with highly professional but easy-to-process products and a supporting marketing package to allow fast processing and to achieve optimal sales success.

Based on this, other important elements contribute to the success of the brand:

- Up-to-date communication
- Targeted training courses
- Planning aids for architects
- CAD programmes for projects
- Online planning tools for daily use
- And much more for optimal consulting at the point of sale





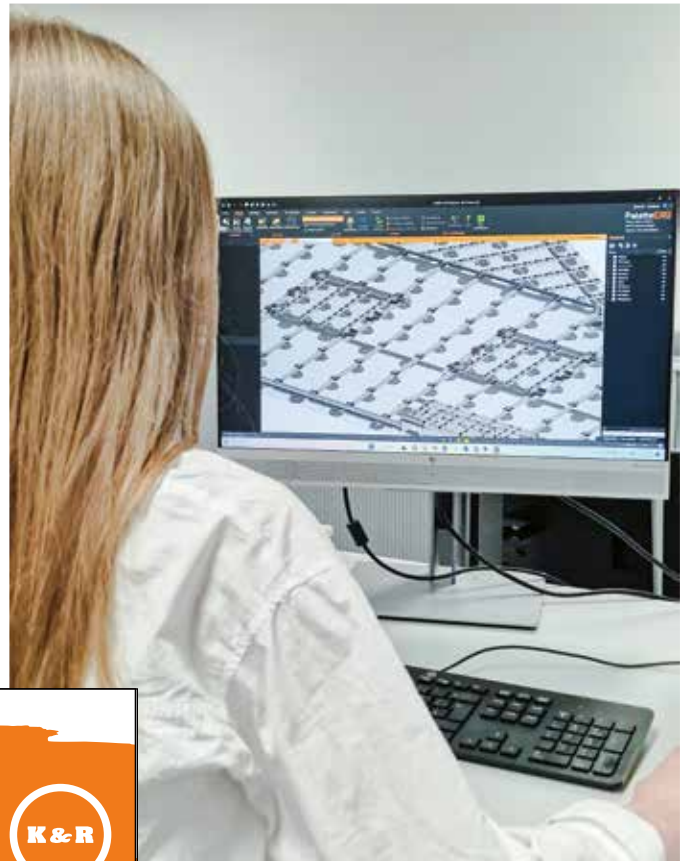
# CAD project planning service

Precise planning in advance means that increasingly complex projects can also be realised within the shortest possible time. Our **CAD planning service** not only helps to realise technically demanding patio constructions, but also fulfils the requirement profiles of construction companies and architects.

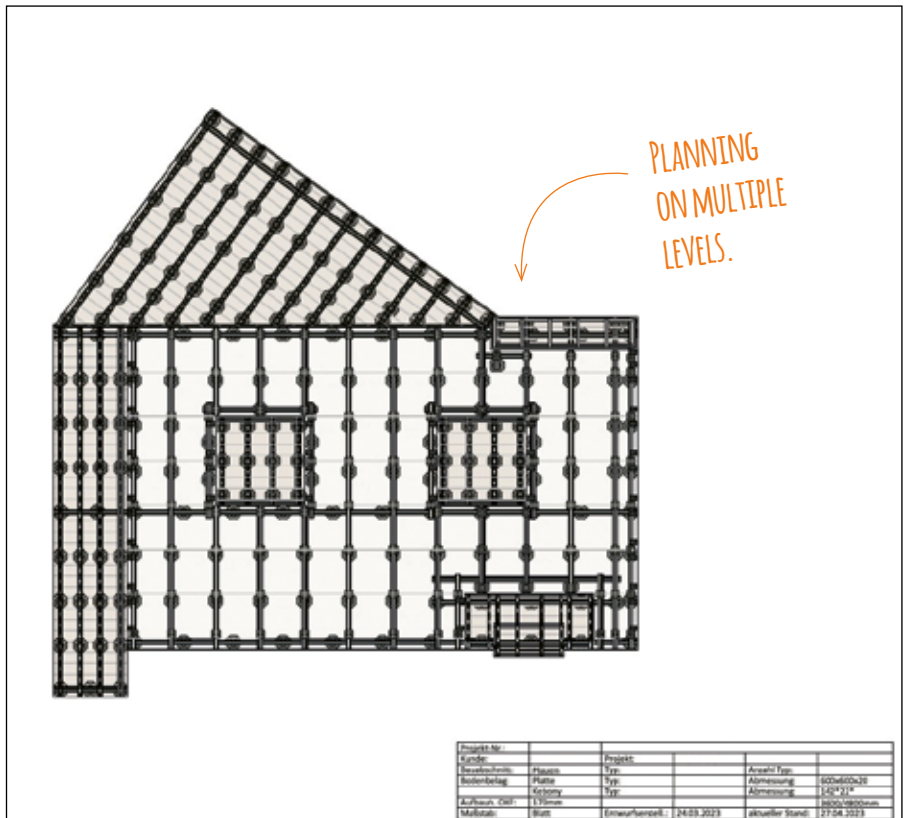
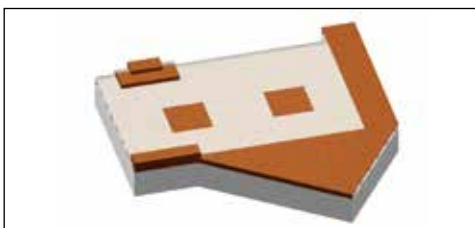
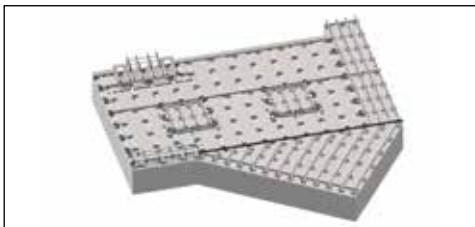
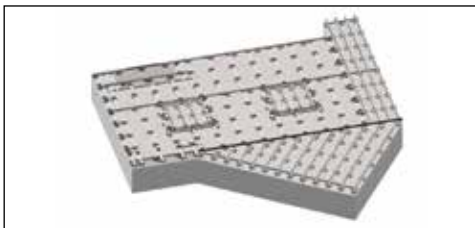
This is how we plan your terrace:

- Sketch/Checklist
  - Laying diagram
  - Quantity take-off
  - Detailed solutions
  - Installation steps
- 
- = Project design

With increasing complexity, such as planning of stair treads, door and window reveals or special terrace constructions, a three-dimensional view with additional functions can be useful. For this purpose, the planning layout can be requested for a user-friendly online application.



CLICK AND DISCOVER  
NEW POSSIBILITIES



Ideal representation thanks to 3D visualisation

# Training courses

Professional advice and smooth installations are the craftsmanship for specialist retailers and installers. Our training courses help them to get to know the advantages of Karle & Rubner systems. When imparting the training content, it is most important to us that the training programme is tailored to the needs of the participants.

Therefore, we offer our training courses **on-site** at the retailer, in our **training centre** or online via **webinar**. Our training contents are:

- Introduction to the system
- Practical experience
- All about planning
- Important facts about patio construction

More about this topic:  
[karle-rubner.de/schulungen](https://karle-rubner.de/schulungen)

CURRENT  
TRAINING COURSES



Our training centre in Eschenburg



On-site training at the retailers



Webinar



# On-site supervision

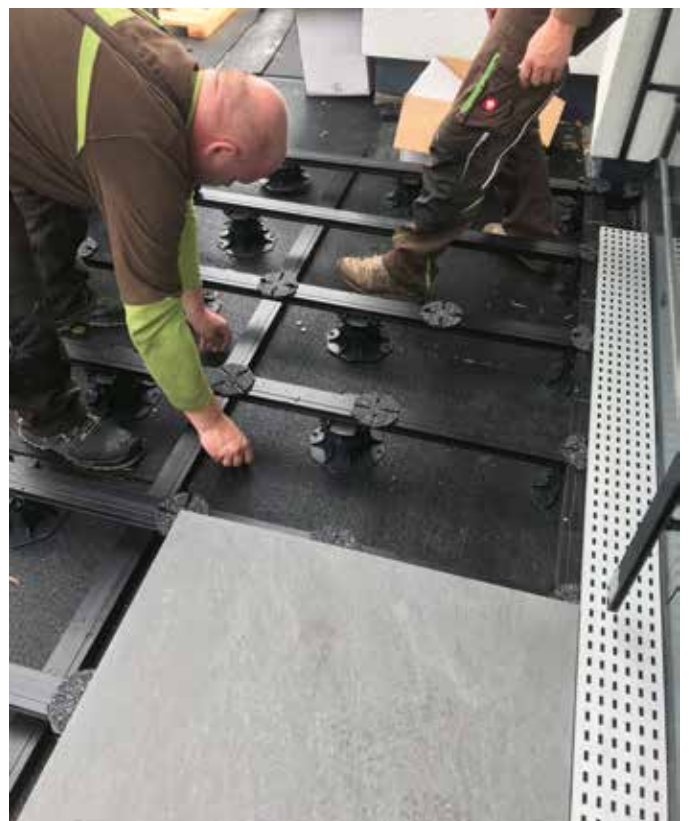
Following a project planned with CAD, we offer a compact **on-site instruction** session. The system and all its technical details are explained to the installers without taking up too much time. This means that neither the specialist retailer nor the installers require any previous knowledge of our system in order to realise complex projects together.

Elements of our project support service:

- Project briefing online / on site
- Introduction to the system
- Installation instruction
- Support throughout the project via WhatsApp, e-mail, telephone

Our support serves specialist retailers and installers as assistance for the successful implementation of projects and smooth project completion.

MORE DETAILS ABOUT  
ON-SITE SUPERVISION



# Online planning tools

Is it possible to plan a terrace, a privacy screen or a roofing without much prior knowledge within a few minutes with just a few clicks? Yes, it is! With the support of our planning tools, you are guided through your project step by step and after finalised planning you receive, among other things, a quotation template, a parts list, a technical drawing, installation plans as well as a cutting list.

The basis for the development of our planners is the feedback from our customers. We always strive to adapt the tools to the current requirements and therefore listen carefully to the ideas and requirements that the users bring to us for improvement. The continuous practical development is the main reason for the high acceptance of this sales and planning support.

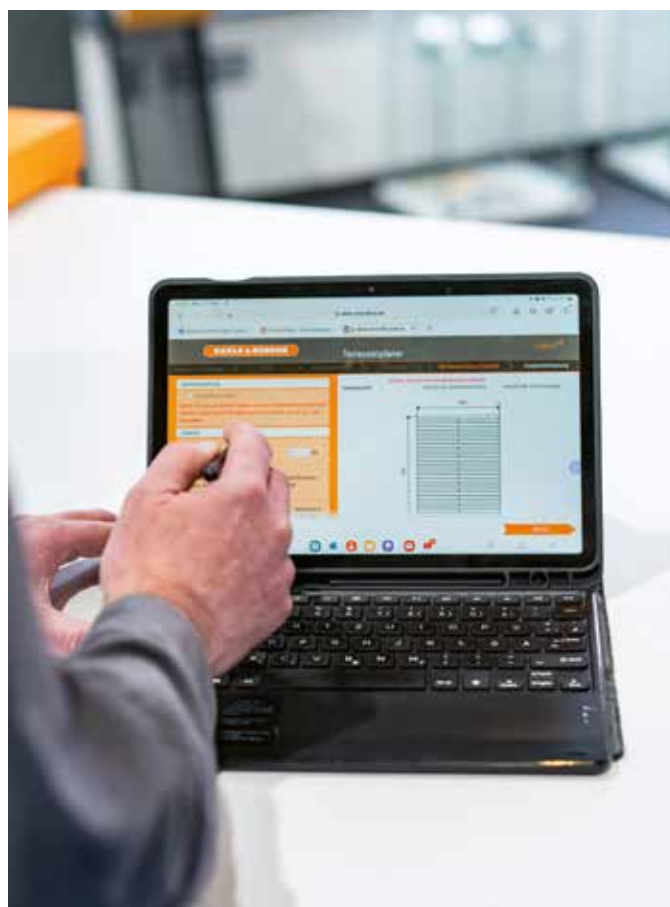
We offer planners for our product ranges:

- Patio construction with decking boards
- Patio construction with tiles
- Privacy screens
- Roofing

Our online planners are accessible to anyone interested. Here, projects of all ranges can be easily planned in common construction situations and are optimal for planning with the customer at the point of sale. This helps to speed up planning and processing overall, so that there is still time for the essentials even when demand is high.

Start planning right away:  
[karle-rubner.de/online-planer](http://karle-rubner.de/online-planer)

CLICK AND  
START PLANNING



Online planner for privacy screens



Decking planner for boards and tiles



Online planner for roofs



## Online services

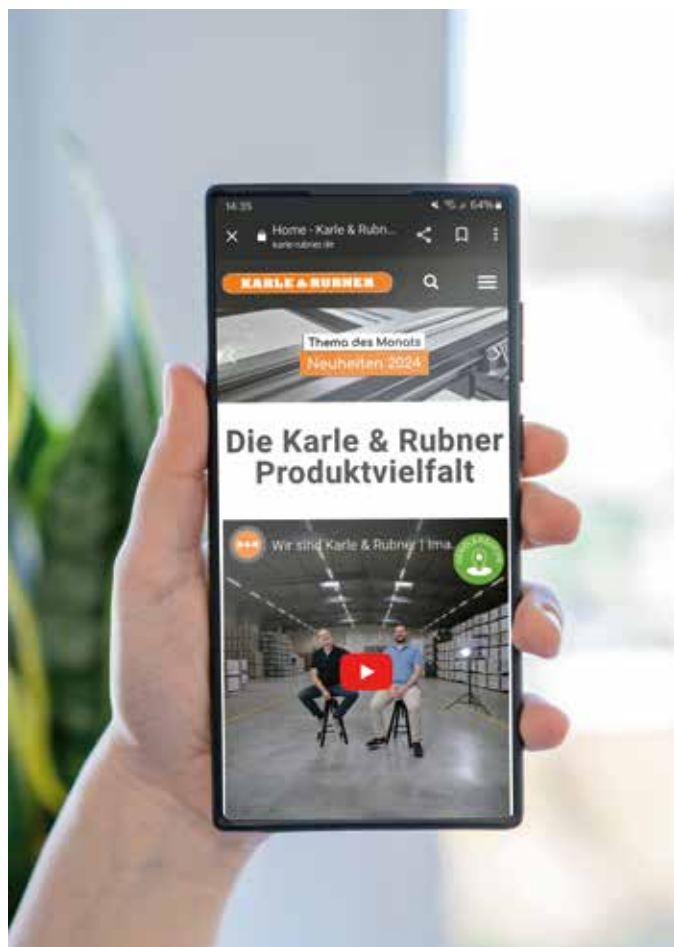
Do you want to dive deeper into the world of our products and services? You want to see what we are talking about? Or need more information on specific topics? Then take advantage of our wide range of online services:

Here you can find out everything about our range of services and get a glimpse behind the scenes. This includes everything from direct impressions on the construction site via the presentation of our team, practical installation videos and user-friendly online planners to inspiring images that simply make you want more. All of which, of course, can be accessed anywhere, at any time.

On our homepage, you will find not only current topics relating to our product range, but also a special user-friendly tour of the world of Karle & Rubner. We also offer a quick guide for existing customers so you can find what you are looking for in just a few clicks. Here you will find attractive visual material, detailed product descriptions as well as technical data sheets, catalogues, installation instructions, information on construction-specific solutions, a compilation of general expertise and details of our training courses.

Are you curious? Then visit us  
unter [karle-rubner.de](https://karle-rubner.de)

THIS WAY  
TO OUR HOMEPAGE



## Social Media Profile

Our profiles are all about new inspirations related to patios. We are happy to show current reference objects on the platforms and also provide practical insights into project management as well as our everyday activities.

Whether on the construction site, in training courses or in conversation with the installer: „Available anytime, anywhere!“

On top of that, our YouTube channel features up-to-date „step-by-step“ installation instructions, information on our products and more.



CHECK OUT OUR  
SOCIAL MEDIA PROFILES



A man with glasses and a dark t-shirt is shown in profile, holding a black metal patio railing component. He is pointing at a specific part of the component with his right index finger. The component is a cross-section of a railing, showing internal white plastic or metal inserts. The background consists of vertical grey slats and a white wall with a black-framed screen.

## PRODUCT DEVELOPEMENT „MADE IN GERMANY“

Through the close collaboration with all project participants such as specialist retailers, processors and architects we receive important feedback and new ideas direct from the construction site, so that our product development working group is always supplied with fresh ideas.

The implementation of these product ideas in cooperation with regional producers enables us to offer trend-setting product ranges that advance patio construction.

These components make TERRACON® patio accessories a professional and indispensable component in the laying of patio decking. The matched products offer solutions for a wide range of constructional situations and facilitate quick and convenient patio construction. For us, this all adds up to quality "Made in Germany".





Planning and construction



Test with 3D model on existing products



First application in practice



Quality control of samples



## IMPORTANT FACTS ABOUT PATIO CONSTRUCTION

In the project sector, there is a shift from traditional single-family homes to owner-occupied or rental flats in apartment blocks. This change is having a significant impact on patio construction projects. This has resulted in a significant increase in clients' requirements and the specifications for substructures for roof terraces, balconies, stairs, etc. This brings old and new technical issues of patio construction into focus, as many properties have to meet requirements in terms of fire safety, protection against wind suction, compressive loading and drainage. Technically correct and professional patio construction is therefore the key to a sustainable project business, both in terms of proper planning and implementation through technical problem solvers and the necessary training of those involved.

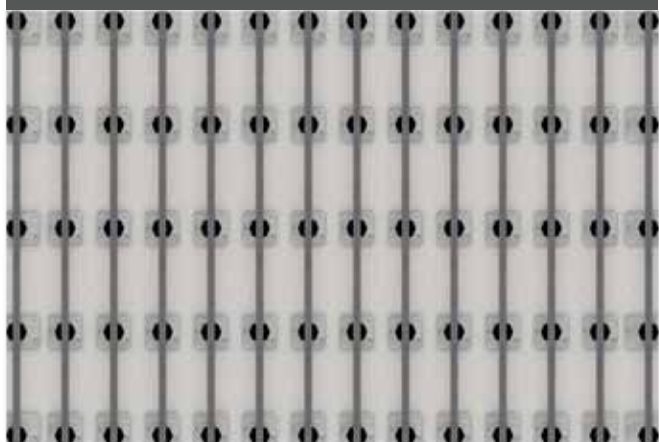


The construction of a deck requires expert knowledge and is subject to generally recognised regulations, such as the brochure „Decking and Balcony Surfaces“ from GD-Holz. For successful planning and execution, be sure to inform yourself about local building regulations and pay attention to the installation instructions for the decking boards and fastening materials.

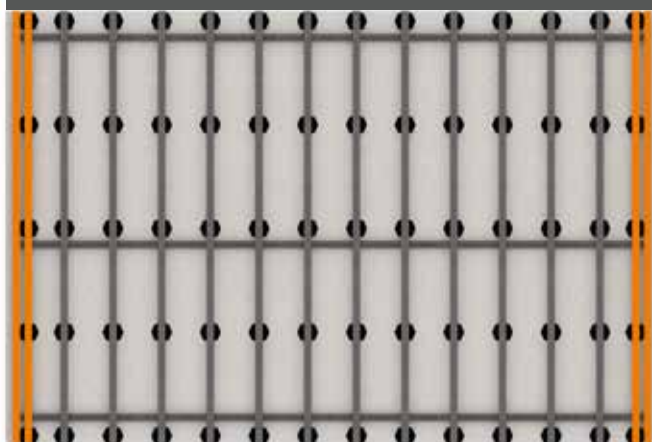
By walking on a terrace and with heavy-working planks, forces act that can shift the entire substructure. For this reason, a permanently stable fastening is essential. The following graphics show different ways of installing a terrace in a torsion-resistant manner:



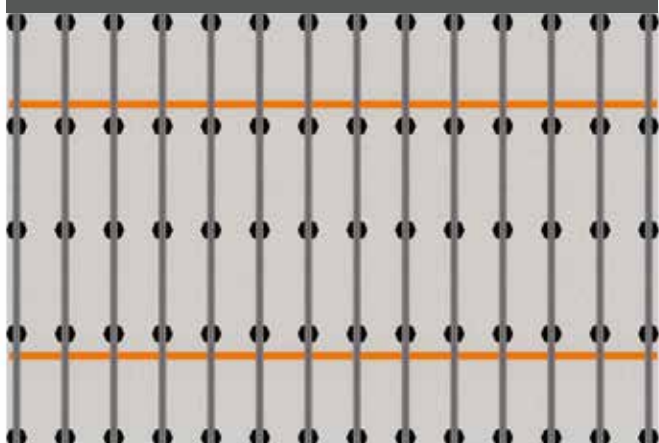
Construction with bolting to the ground  
(e.g. concrete, asphalt or patio slabs)



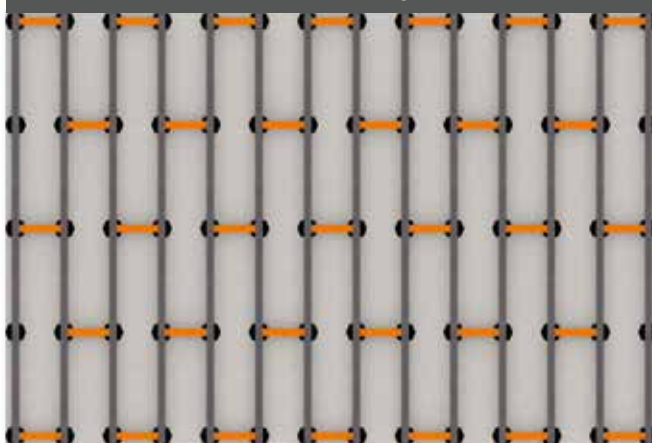
Construction with double substructure at  
front and end



Construction with counter battens



Construction with cross bracing



# Appropriate protection from wind suction on roof decks

If the wind suction load is not taken into account when planning a patio, a roof deck that is too light may „lift off“ in high winds. The occurring forces are classified in wind load zones and differ depending on the region as well as the height of the building. In Germany, these are classified from 1 to 4, with the highest class 4 being in maritime areas\*. In addition to the wind load zones, the building height must be taken into account in the determination. The rule applies here: the higher the building, the higher the wind suction load. The object-related values are determined by an architect.

**Example:** The total weight of a planned patio, consisting of decking boards and substructure, is 0.8 kN/m<sup>2</sup>. Taking the wind suction load into account, however, the value would have to be 1.2 kN/m<sup>2</sup>. To achieve this value, you could, for example, screw the construction to the floor of the building. This is often not practicable, as it would damage the waterproofing underneath and cause water to penetrate.

For this reason, with the wind load carrier we developed a system component, which is fixed below the system rail by simply snapping into place, thus serving as a holder for weights. Thus by laying in concrete paving slabs at various levels and with various weights, the specified value on the wind load carrier can be achieved.

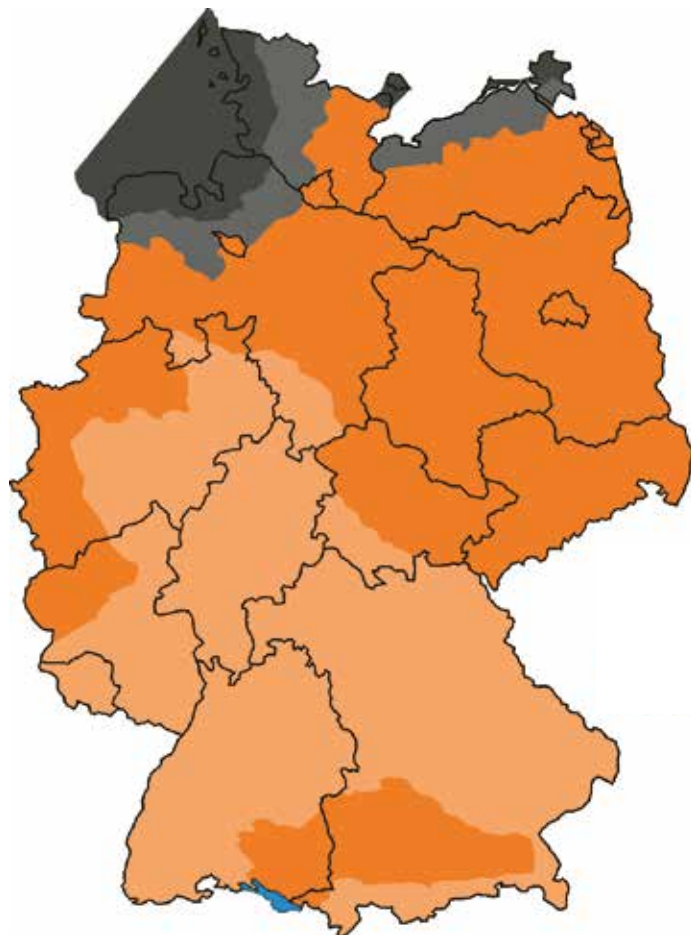


Weighing down the structure e.g. by concrete or steel slabs 30x30 cm according to the required weight per unit area.





- Wind load categories are defined regionally and determined on a site-specific basis
- Wind load categories are classified from 1 - 4
- In addition to the different categories, the height of the building must also be taken into account
- Suitable measures are to be determined between planner and constructor



Simplified velocity compressions for buildings  $h \leq 25$  m according to DIN EN 1991-1-4/NA

Wind load category and combined profiles		Velocity compressions $q(z_e)$ in $\text{kN/m}^2$ at the height $h$ within the limits of		
		$h \leq 10$	$10 \text{ m} < h \leq 18 \text{ m}$	$18 \text{ m} < h \leq 25 \text{ m}$
1	Inland	0,50	0,65	0,75
2	Inland	0,65	0,80	0,90
	Coast and Islands of the Baltic Sea	0,85	1,00	1,10
3	Inland	0,80	0,95	1,10
	Coast and Islands of the Baltic Sea	1,05	1,20	1,30
4	Inland	0,95	1,15	1,30
	Coast and Islands of the Baltic Sea	1,25	1,40	1,55

- Wind load category 4
- Wind load category 3
- Wind load category 2
- Wind load category 1

Excerpt from „Flachdachrichtlinie“

## Example for Wind loads:

Kebony 142x22 mm 15,0 kg /  $\text{m}^2$   
 Substruction Kebony 4,3 kg /  $\text{m}^2$   
 Decking support feet 0,3 kg / Stück 1,2 kg /  $\text{m}^2$

**Total weight:** **20,5 kg /  $\text{m}^2$**



# Drainage profiles for junctions to door/window elements

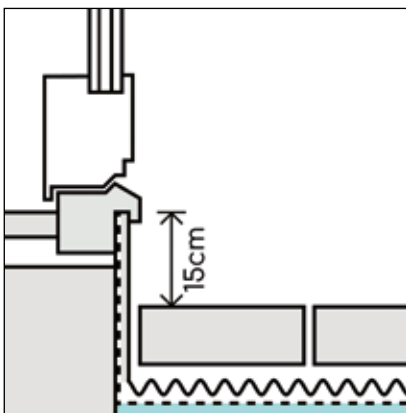
The issue of Drainage Systems for patios has gained increasing importance in the last few years, especially when it comes to junctions with door and window reveals. The water that accumulates on the terrace via rain, splash water or snow should be drained off as quickly as possible. Especially in the area of house connections and door reveals, waterlogging should be avoided at all costs. In this way, water penetration can be prevented, e.g. through door sealings.

The specifications as to when and how a drainage grid must be used along with the connection heights on the house are regulated by the Flat Roof Guideline and DIN 18531. These serve as reference works and list the different requirements, which are differentiated in the following steps. The connection height of the terrace at the building or reveal is used as the basis for assessment:

- $\geq 150$  mm without drainage grid = connection complies with regulations
- between 150 and 50 mm with drainage grid = connection complies with regulations
- less than 50 mm is a „special sealing construction“ that can be regulated in consultation with all parties involved
- smaller than 20 mm to 0 mm is considered barrier-free according to DIN 18040 and is also a „special sealing construction“

Our drainage profile corresponds to the drainage grid required by the „Flachdachregel“ with a width of at least 150 mm.

 Drainage profile  
from page 164





# Use classes of wooden boards

Despite numerous maintenance-free alternatives such as WPC or BPC, decking boards made of solid wood are still very popular. The feel and grain of the wood planks are the main factors in the decision to choose this material.

When looking for suitable decking boards, the durability of the wood species is important besides its structure and colour. Therefore, tropical hardwoods are often chosen. However, the origin and thus the sustainability of a plank is currently more important than ever, which is why the importance of domestic woods such as larch, Douglas fir or also thermo-wood in pine and ash is increasingly growing. In order to achieve a high longevity with the choice of a more sustainable plank, the constructive wood protection also plays a decisive role in addition to the selection of the wood species. This is why during construction, you should make sure that the planks are protected from waterlogging. This is prevented by spacers between the decking boards and the substructure. As experience shows, the constructive wood protection according to DIN 68800 achieved in this way leads to a 20 - 30 % longer service life.

**Example GK3:** Classification of decking boards e.g. made of pine, larch, Douglas fir

Laying the boards without spacers means a classification in the lower service class 3.2 - by using spacers (Terraflex/Terrafox/Clipper) the same boards are upgraded to the higher GK 3.1 and are thus comparable with the durability of many tropical hardwoods.



# Aluminium is more cost-effective than wood!

An average terrace area measures 15 m<sup>2</sup>. The following example shows the effects of using substructures made of wood versus aluminium and their different static load capacities. The example is based on the following assumptions:

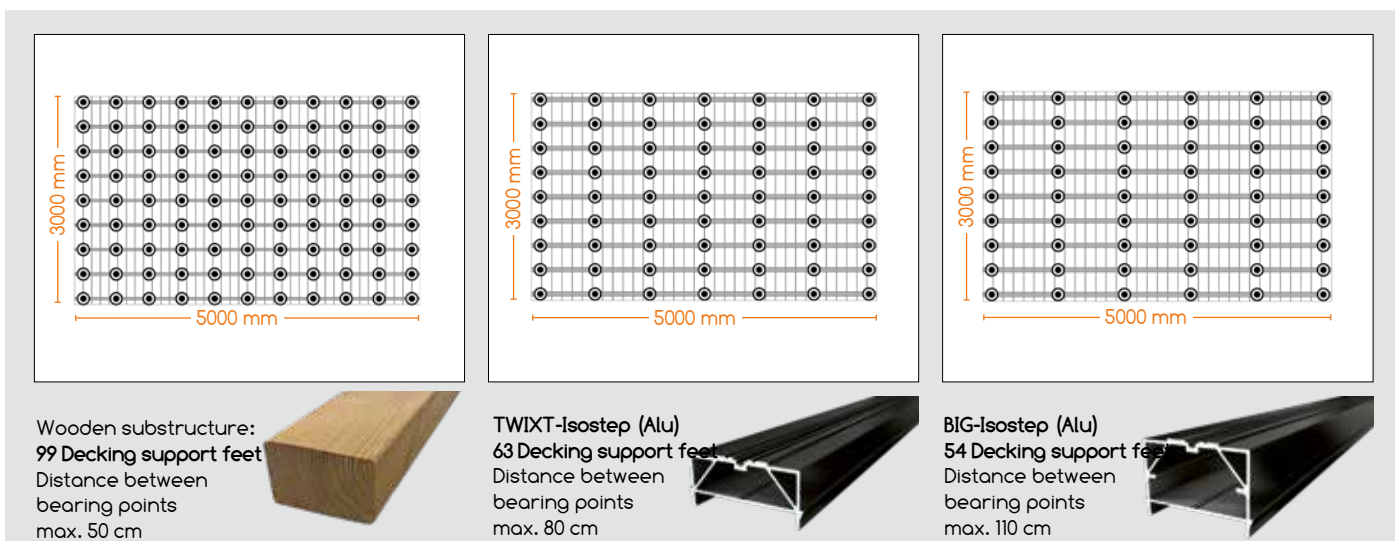
- the entire terrace requires height compensation and must be underpinned with Decking support feet
- the spacing between the substructures is 40 cm in width
- the boards are laid without a joint

- ✓ Less decking support feet
- ✓ Waste-optimised installation
- ✓ Less assembly effort
- ✓ Time saving due to less adjusting and aligning

= COST SAVINGS

**PRICE ADVANTAGE:** The cost saving due to the smaller amount of decking support feet the higher price of a substructure made of aluminium compared to wood starts at an area of 5 m<sup>2</sup>! Additionally, aluminium UK's allow a waste-optimised installation by using connectors!

**TIME SAVING:** Less decking support feet = less time for aligning a convenient installation base. When using the decking support feet with flexible top part, the installation surface does not even have to be aligned in a time-consuming manner, as it can be inclined by up to 8 %. The use of our decking support feet CLIP with the TWIXT-/BIG-Isostep rails saves additional tedious bolting by simply clicking them on.



By using an aluminium substructure, up to 45 decking support feet can be saved!



# 10 Years System Guarantee

We have developed, tested, trialled for you and it has proven itself in practice for years. From now on, we therefore give a 10-year guarantee on an entire substructure from our Karle & Rubner system! This system guarantee\* includes the combination of the following products:

<p>CLIP Decking support feet</p>  <p>CLIP Decking support feet range of adjustable height: 25-40 mm   35-70 mm 65-155 mm   145-225 mm</p>	<p>CLIP rail</p> 	<p>Connector</p> 
<p>Isopad 20 mm</p> 	<ul style="list-style-type: none"><li>· MEGA-Isostep</li><li>· BIG-Isostep</li><li>· TWIXT-Isostep</li><li>· H-Isostep</li></ul>	<ul style="list-style-type: none"><li>· Connector MEGA-Isostep</li><li>· Connector BIG-/TWIXT-Isostep</li><li>· Connector H-Isostep</li><li>· Corner connector BIG-/TWIXT-Isostep</li><li>· Corner connector H-Isostep</li><li>· flexible corner connector for BIG-, TWIXT- and H-Isostep</li></ul>

=

10 Years  
System Guarantee



\* For information on the terms and conditions of the guarantee visit [karle-rubner.de](http://karle-rubner.de)



# SUSTAINABILITY THROUGH RECYCLED RAW MATERIALS

Our plastic products have been manufactured from regranulate for years. This regranulate consists of 98% recycled industrial plastic waste, which comes exclusively from German production. The raw material recovered in this way is comparable with new goods in 1A quality, i.e. the mechanical, thermal and chemical properties are almost identical.

Over 90% of the raw material for the high-quality granulates in our Isopads comes from recycled old tyres and technical rubber materials. This is processed according to our specifications in such a way that breathable products with high water permeability are created. Recovered raw materials (recycled label material, plastics from household waste or wood shavings from pallets) are also used in the manufacture of most of our WPC patio decking via technically sophisticated production processes with a share of up to 95%.

**All Isopads, plastic products and WPC boards are fully recyclable.**







Terraflax made of 98% PP regranulate



Aluminium substructures made of 30% alu scrap

**„recycled material“ BUTTON**

We use the “recycled material” button to mark all of the products with the percentage of recycled material used in the production process.

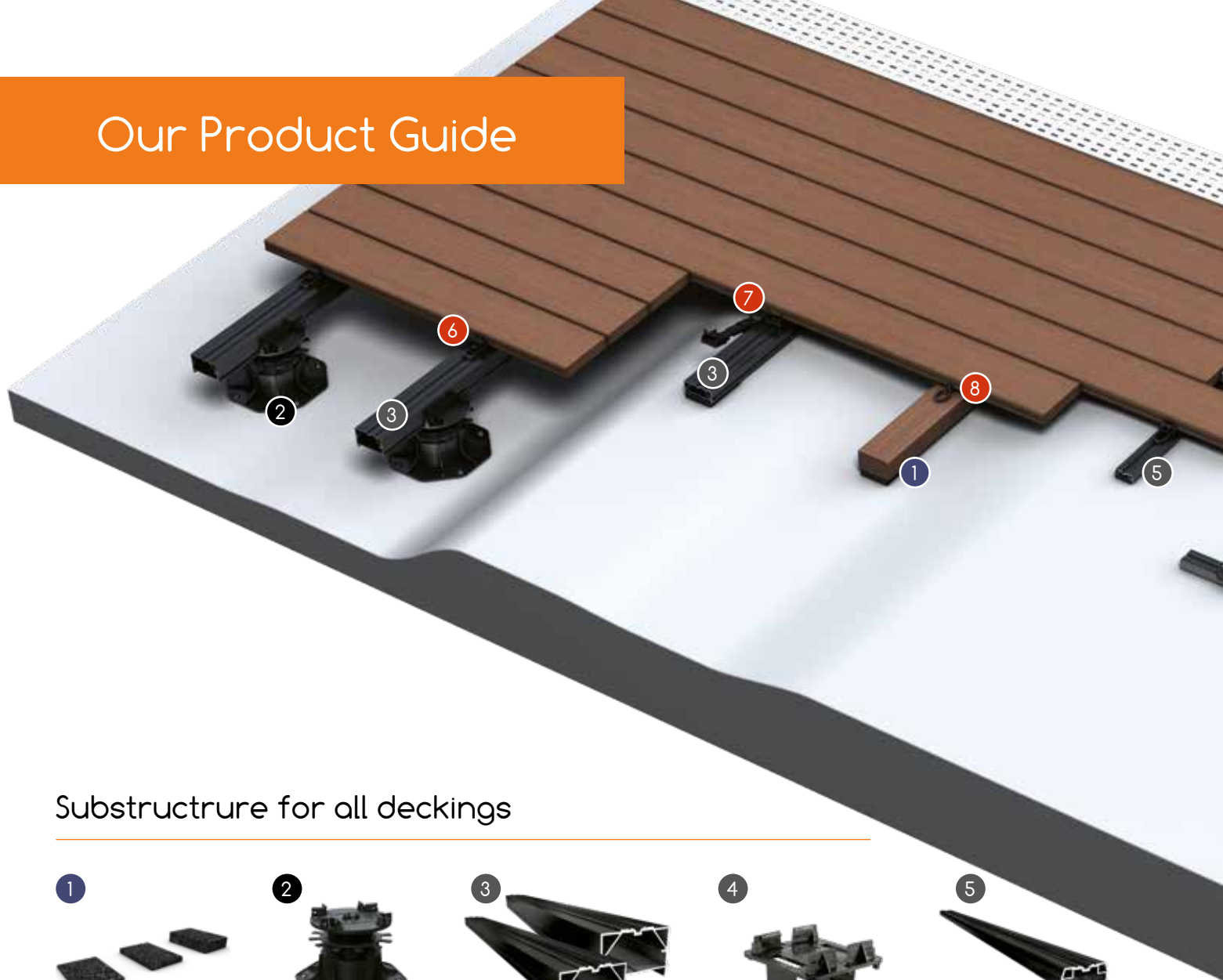


Isopads made of 95% discarded tyre granulate



WPC decking boards with recycled content of up to 95 % from plastic or label waste

# Our Product Guide



## Substructure for all deckings

1



**Isopad**, levels out unevenness and provides waterlogging protection.

P. 96

2



**Decking support feet CLIP**, height adjustable with gradient compensation up to 8 %.

P. 100

3



**TWIXT-/BIG-Isostep**, aluminium substructure for high construction height.

P. 108

4



**KL cross connector**, for quick and easy torsion-resistant installation of the substructure.

P. 112

5



**SMART-Isostep**, aluminium substructure for low construction height.

P. 116

## Fastening of decking boards

6



**Terraflax**, invisible fastening for grooved boards.

P. 144

7



**Clipper**, invisible fastening for boards without groove.

P. 150

8



**Terraflax**, distance holder for visible screwing.

P. 154



The approved system for easy and quick installation of all common patio deckings.

**ONE system for ALL decks:** with only a few additional accessories, the same system can be used for the simple and quick installation of patio tiles and decking boards.

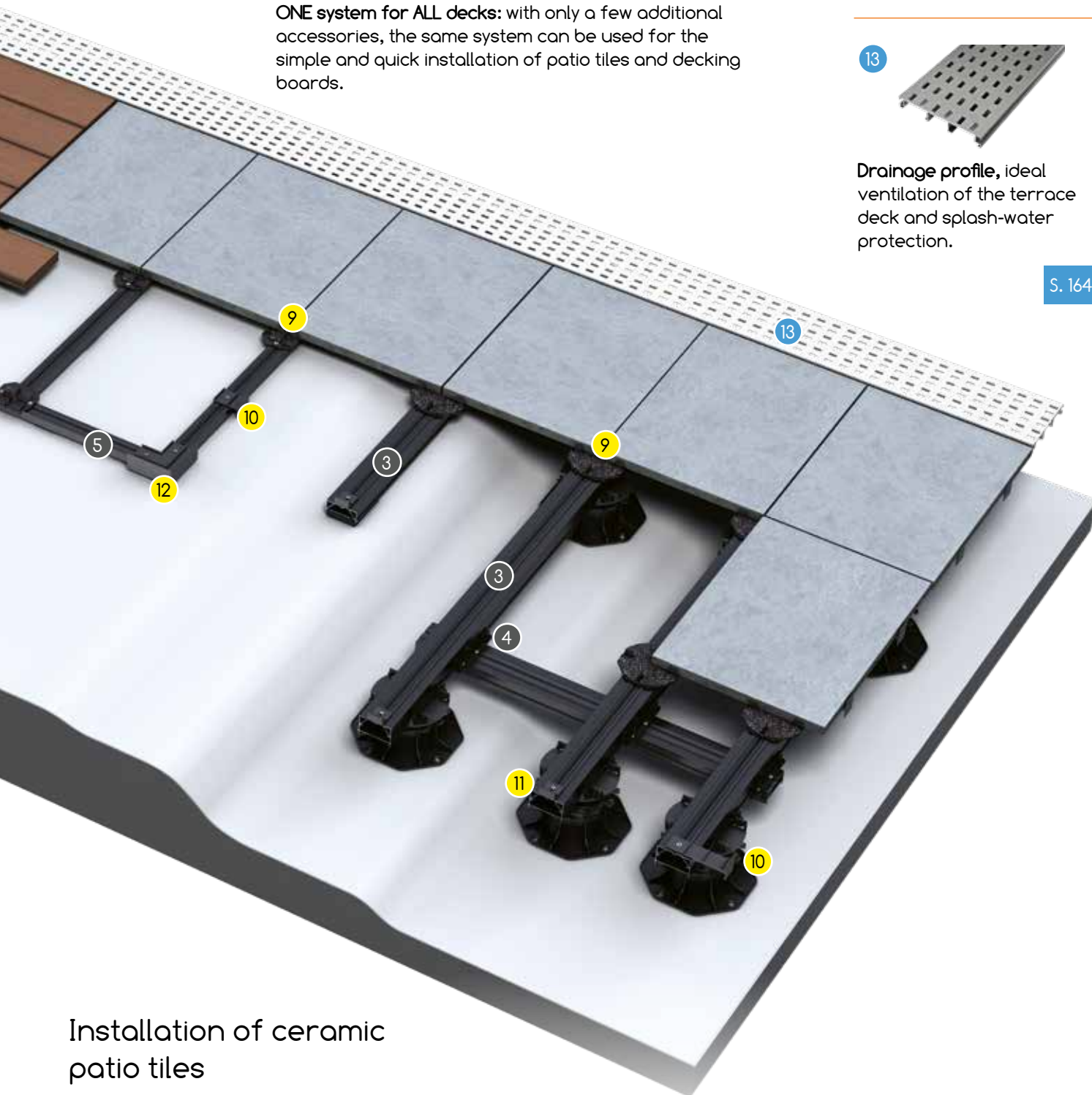
## Patio trims

13



**Drainage profile**, ideal ventilation of the terrace deck and splash-water protection.

S. 164



## Installation of ceramic patio tiles

9



**M-Fix / M-Fix SMART**, non-slip support for an even joint pattern (3 mm).

P. 134/136

10



**S-Fix / S-Fix SMART**, lateral attachment of patio tiles.

P. 135/137

11



**Wall-Fix**, front attachment of patio tiles.

P. 137

12



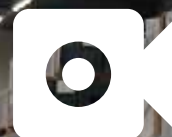
**Corner-Fix SMART**, prevents lateral slipping in the corner area for laying on SMART-Isostep.

P. 135

**KARLE & RUBNER**



# OUR IMAGE FILM



CLICK HERE  
FOR THE FILM



[www.karle-rubner.de](http://www.karle-rubner.de)

