

**kovalex**<sup>®</sup>

# WPC floorboards



Standard | Exklusiv | Solid with texture | XL with texture



# ECOLOGICAL ASPECTS

**We take responsibility**  
for people and the environment

When manufacturing our Kovalex® WPC floorboards, we follow the principles of sustainability. We process renewable materials.

The wood of our WPC floorboards comes from sustainable forestry.

We avoid unnecessarily long transport distances. We also use fibers from tree trunks that are unsuitable for use in furniture construction.



## ENJOYMENT AND FREEDOM TAKE YOUR TIME

Experience nature and the sun whenever you want just by stepping outdoors. With Kovalex®, transform your new patio or balcony into a little mini-break. Simply enjoy the moment with friends or your family.

### THE NEW CENTRE OF YOUR LIFE WHERE YOU FEEL COMFORTABLE.

On both sides, Kovalex® displays precise workmanship and sophisticated functionality. Thanks to our carefully selected materials and our local production site, we guarantee the highest quality, board by board. You can see this at first glance thanks to the natural wood look and you can feel it when you hold Kovalex® in your hands for the first time. You will be impressed by the unique profiles and wood textures with their clean lines.

The Kovalex® system gives you the perfect framework for a completely successful patio. Lay your living room outdoors! See for yourself.



Wood look, velvet ash matte

Standard, grey brushed



Cover photo:  
Wood look, velvet ash matte



# DREAMS AND PASSION SET NEW STANDARDS

If you had one wish, what would your new patio have to be like?  
Resilient, stable, easy-care and simple to install?

All of this is combined by WPC – a wood-plastic composite made from 70 % wood and 30 % plastic. Both components give their best properties to a new product - Kovalex®.

Kovalex® is long-lasting like synthetic materials and also has a pleasant robust feel like wood. We offer you a comprehensive range of colours and surfaces. You can thus design your place in the sun freely according to your ideas.



Exklusiv, grey matte



Exklusiv, grey-brown matte



#### TAKE KOVALEX® IN YOUR HAND.

You will see the amount of care we put into manufacturing. You will feel the originality of the wood in all its beauty. Thanks to its selected colouration, the finely nuanced surface finish and the balanced dimensions, a new, comfortable centre of life is created on your patio.

#### MANY BENEFITS ARE COMBINED.

But Kovalex® combines much more. Thanks to the combination of natural and modern materials, Kovalex® is easy-care and extremely resilient.

The changing seasons are no longer a problem. Wherever wood reaches its limits, Kovalex® is well ahead. Delight in an intact surface. Mould and insects, cracks and splinters don't have a chance, and it has longevity comparable to durability class 1\* for solid wood.



\*Tested in accordance with: prCEN/TS 15083-1

#### THE KOVALEX® BENEFITS AT A GLANCE:

- › **Barefoot-friendly**  
Matte-finish and untreated Kovalex® boards are splinter-free thanks to their closed surface. In the brushed boards, a very natural appearance is created thanks to the slightly roughened surface. Small, individual wooden fibres can come loose because of this.
- › **Non-slip**  
If you regularly clean and maintain Kovalex®, your boards will remain non-slip in both dry and wet condition.
- › **Waterproof and resilient**  
Kovalex® patio decking is absolutely waterproof, as it is resistant to frost, heat, mould, insects and termites.
- › **Easy-care**  
No pre-treatment or regular painting is required. Simple cleaning with water and a neutral cleaning agent.
- › **Long service life**  
Despite minimal care requirements, Kovalex® decking boards have a long service life.
- › **Natural appearance**  
Kovalex® decking boards can be barely distinguished visually from wood. They are to be used like wood and can thus be used in a versatile way.



# CUSTOMERS AND REQUESTS SIMPLY TAKEN SERIOUSLY

Successful products have many things in common: They impress with quality, reliability, sustainability and place the needs of the customer at the fore.

We leave nothing to chance, neither in terms of security nor design. This happens using modern technology, with the necessary passion for our products and, last but not least, through our customers. After all, it is well-known that you know best what you want.

## COLOURS AND SURFACE FINISHES – DIVERSITY IS THE KEY.

No patio is like any other. And the range of our decking boards is as extensive as the demands of our customers with regard to colour and surface. Our portfolio contains a never before seen array of colours. We have thus paid particular attention to the trend colour grey. If you combine these colours with our various surface designs untreated, matt finish or brushed, other different tones are created. You have the choice!



## DO YOU STILL USE SCREWS OR DO YOU ALREADY USE CLIPS?

Screws are a thing of the past! At Kovalex®, we use clips – fool-proof and above all fast. With our invisible laying system, you save plenty of time and money when constructing your dream patio, as there is no need to laboriously drill and screw the fixing clips in place with Kovalex®. Simply attach and lock the WPC board with the clip – finished!

## A COMPLETE, PROFESSIONAL LAYING SYSTEM.

Kovalex® is not only a well-developed, tried-and-tested composite material, but also a sophisticated laying system that is optimally adapted to the needs of our customers. No matter whether low construction heights or terrain compensation, our system offers construction heights of 40 mm to 221 mm. But that's not enough. For edging and wall trims, you have the choice between a low-cost and a higher-quality solution. In the product range, you will also find our LED profile made from aluminium with the corresponding light strip. LED light gives your patio that very special something.

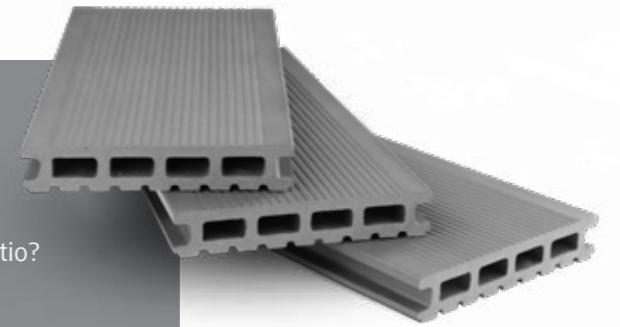
## YOU MEASURE – WE MANUFACTURE!

### Patio decking in your desired length!

Do you have individual preferences in terms of the size of your patio? Then we will help you and prevent unnecessary butt joints and unpleasant patio decking offcuts.

We manufacture for you your very own, individual patio decking – with centimetre precision\*, in lengths between 100 cm and 600 cm (for an extra charge). In addition, we put together the installation accessories you require according to your own personal needs. All of this is not only good for your wallet, but also saves resources and protects the environment.

Put us to the test! With our individual service, you are guaranteed to be completely satisfied.



\* Please note that dimensional tolerances of -1 cm to +2 cm can occur in terms of length due to cutting.

### Your benefit with Kovalex®

- › no offcuts as centimetre precision\*
- › no butt joints as lengths up to 6 metres
- › Cost saving as no offcuts
- › Accessory saving as individual composition
- › Time saving as less cutting work



## YOU DESIGN - WE CALCULATE

Ingeniously simple: plan your Kovalex® patio online! A further bonus: safety for your project.

If you want to leave configuring a new patio to the experts, you have the perfect partner by your side with Kovalex®. Whether board colour or the selection of clips – our online patio configurator will guide you step by step through the individual items for the patio being planned. At the end, you will have a precise list of all of the items needed. Is your patio more complex or do you have any other questions? No problem – ask the advisor at your specialist retailer!

When planning your project, please be sure to take into account the corresponding requirements and information in our installation instructions as well as the local construction regulations and conditions.

› This take you directly to the free online decking configurator  
<http://terrassenkonfigurator.kovalex.de>

**Terrassenkonfigurator**

Ermitteln Sie in wenigen Schritten den Materialbedarf für Ihre Terrasse. Einfach und unverbindlich.

Und so funktioniert:

1. Gewünschtes Produkt auswählen
2. Unterbaukonstruktion u. Befestigung wählen
3. Form und Größe

**Bedarfsliste**

Menge	Art. Nr.	Bezeichnung	Fläche	Länge	Lfm
20 Stk.	K01405	Kovalex Bodenleiste Eckleiste Hohlkammer Graubraun gebürstet Dicke: 26 mm	13,05 m²	400 cm	90,00 lfm
44 Stk.	K01405	Kovalex Bodenleiste Eckleiste Hohlkammer Graubraun gebürstet Dicke: 26 mm	19,14 m²	300 cm	132,00 lfm
Summe			32,19 m²		222,00 lfm

**Unterbaukonstruktion**

Menge	Art. Nr.	Bezeichnung	Länge	Lfm
33 Stk.	75188	Kovalex Alu-Prof-Unterkonstruktion Dicke: 40 cm	300 cm	

**Befestigung**

Menge	Art. Nr.	Bezeichnung
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Complete. Sophisticated. Versatile.



# QUALITY AND SECURITY ON WHICH YOU CAN BUILD

Never before has technology been so deeply and so naturally integrated into our lives as it is today. This increases the opportunities for new materials. At the same time, it is necessary to sustainably protect our environment for subsequent generations.

With certifications, we document for our customers not only measurable evidence of our sustainable actions, but also safer, cutting-edge boards.



## LOCAL QUALITY AND YEARS OF EXPERIENCE.

With our 20 years of experience in the field of WPC manufacturing, we know what counts. This is evident in our large, satisfied clientele and in the success of our products. In a continuous process, our boards – made in Germany – constantly undergo tests and new developments are only brought onto the market when they meet our high requirements.

## THE ENVIRONMENT DOES NOT LOSE OUT.

The production of Kovalex® follows the guiding principle of sustainability. This comprises, for instance, the use of renewable materials. The wood proportion of Kovalex® thus comes from sustainable forestry and local regions, which avoids unnecessary transport routes. What's more, among other things, fibres are used from tree trunks that have suffered storm damage or those that are unsuitable for use in furniture making due to their shape.

Kovalex® is thus making a contribution to maintaining nature and the environment over the long term. Kovalex® can also be recycled and is 100% free of PVC. In terms of responsibility, we err on the side of caution, which is confirmed by a variety of certificates.



XL mit Struktur, stone grey matte



Flexible.  
Two-sided.  
Design.

## AN INDEPENDENT SEAL PANTS A THOUSAND WORDS:



Exklusiv, stone grey matte





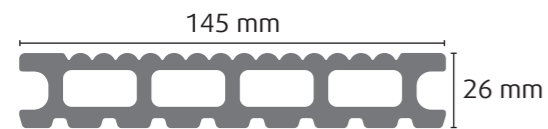
# EXKLUSIV

## ELEGANT AND STRAIGHTFORWARD

When developing Kovalex® Exklusiv, a conventional profile shape from patio construction was intentionally used. The original character of the wood surface is thus conveyed even better and a surface effect that is almost the same as that of a classic wood patio is created.

### KOVALEX® EXKLUSIVE IN PROFILE

Kovalex® Exklusiv is available as a hollow chamber profile and can be laid on either side. Thanks to the different fluting, you have the choice between high-contrast, large fluting and even lines.



Kovalex® Exklusive hollow chamber profile (length: 1 m - 6 m\*)



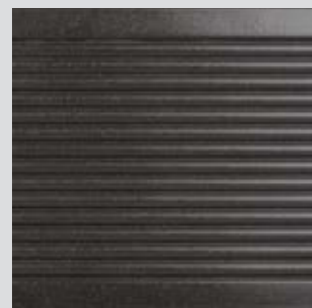
Grey-brown, matte finish



fine fluting

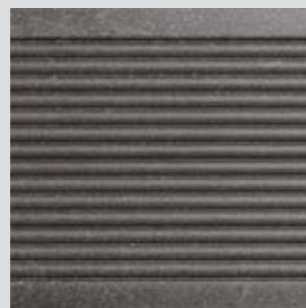
large fluting

### SURFACE FINISHES



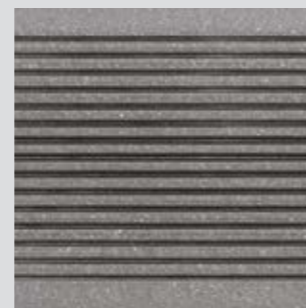
#### Surface finish: Untreated

- Slightly glossy finish
- Intense colour
- Smooth feel
- Less sensitive to stains



#### Surface finish: Matte finish

- Silk matte finish
- Lightened colour
- Matte feel
- Less sensitive to stains



#### Surface finish: Brushed

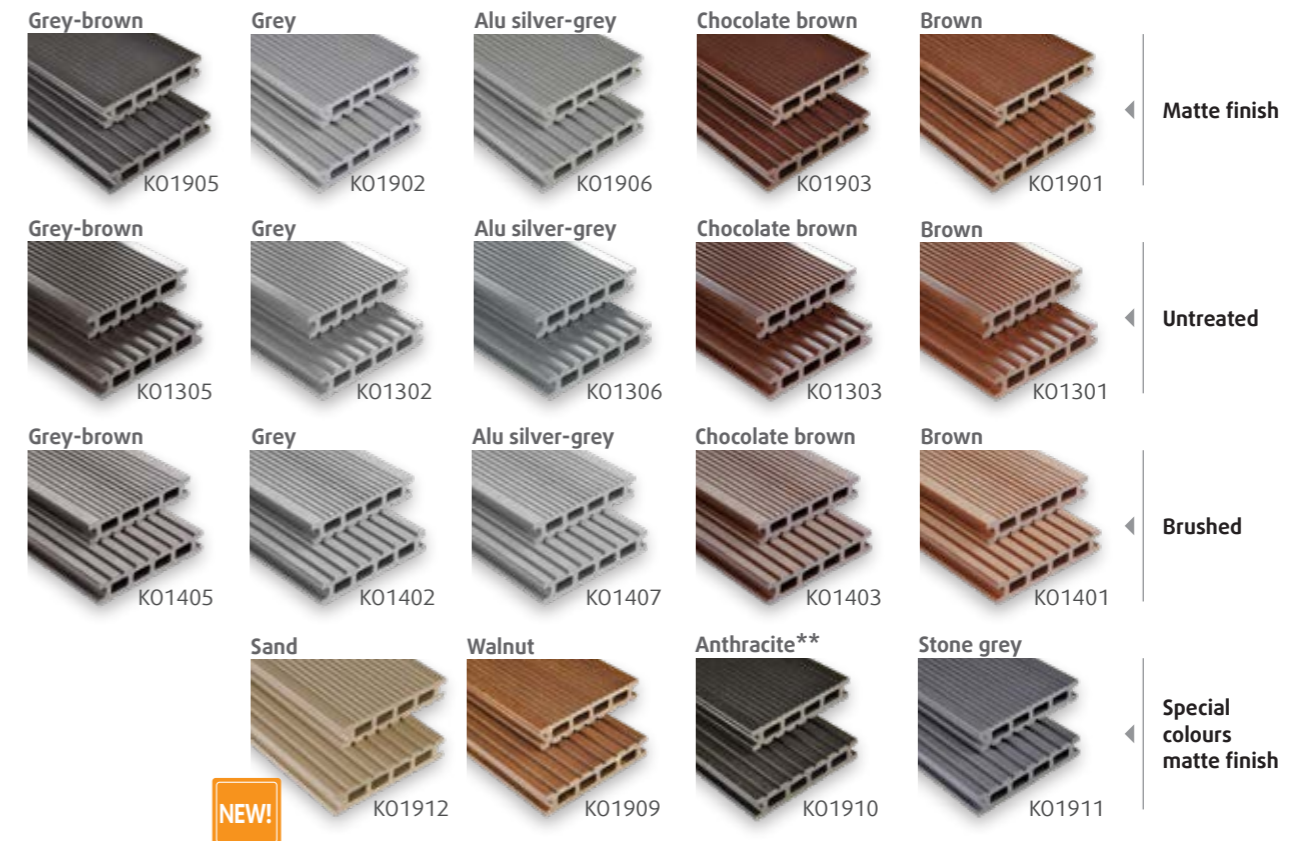
- Matte finish
- Light colour
- Roughened feel
- Especially natural look

# EXKLUSIV

## PROFILES, SURFACE FINISHES AND COLOURS

### HOLLOW CHAMBER PROFILE

- > Width: 145 mm, height: 26 mm
- > Substructure spacing: 45 cm (axial dimension\*)
- > Required decking boards for 1 m<sup>2</sup>: approx. 6.7 RM



\* Please note that dimensional tolerances of -1 cm to +2 cm can occur due to cutting.

\* The axial dimension is measured in each case from the centre of two neighbouring substructures. \*\* Special colour anthracite with a little brown iridescence.



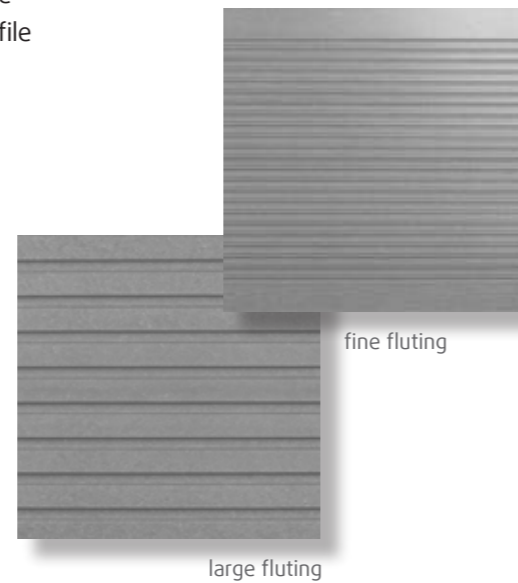
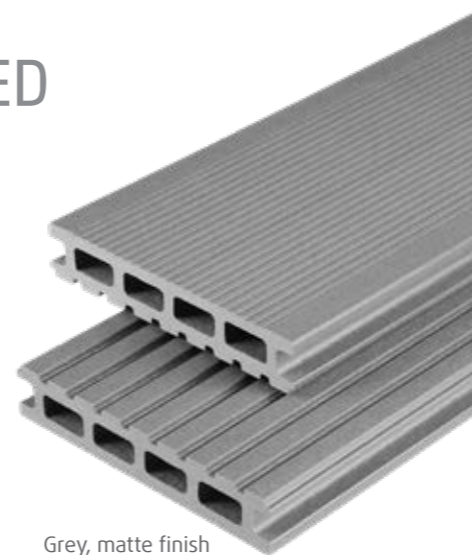
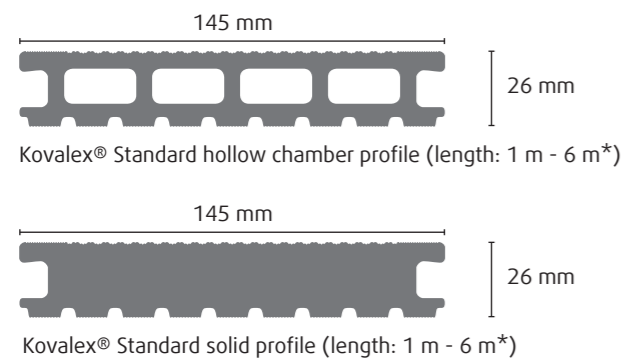
# STANDARD

## CULTIVATED AND SOPHISTICATED

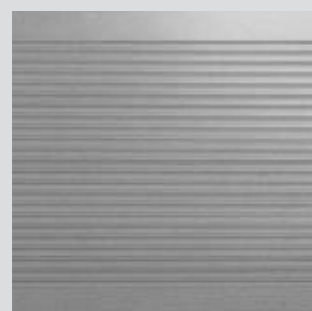
With Kovalex® Standard, we have developed a WPC board with a finely fluted surface. Thanks to the homogeneous lines, the sunlight is fractured softly and your patio presents itself effectively in a unique light. The boards can be laid on either side. The slight fluting is perfect if you place importance on a sophisticated and subtle patio look. With the large fluting, you get a classic surface design.

### KOVALEX® STANDARD IN PROFILE

Kovalex® Standard is available as a hollow chamber profile and in the very stable full-profile version. The hollow chamber board needs a lot less material and thus has a lower weight. Both board types have the same benefits and the same durability. The benefit of the full profile is its greater resilience (point loading).

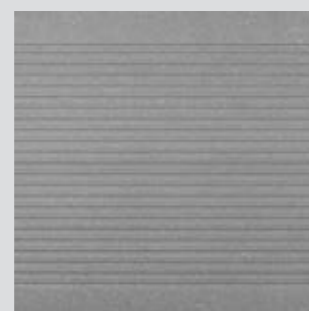


### SURFACE FINISHES



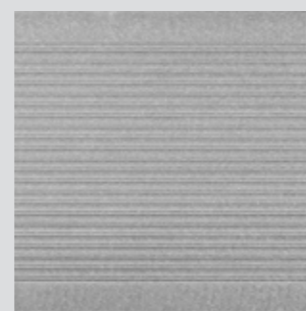
**Surface finish: Untreated**

- Slightly glossy finish
- Intense colour
- Smooth feel
- Less sensitive to stains



**Surface finish: Matte finish**

- Silk matte finish
- Lightened colour
- Matte feel
- Less sensitive to stains



**Surface finish: Brushed**

- Matte finish
- Light colour
- Roughened feel
- Especially natural look

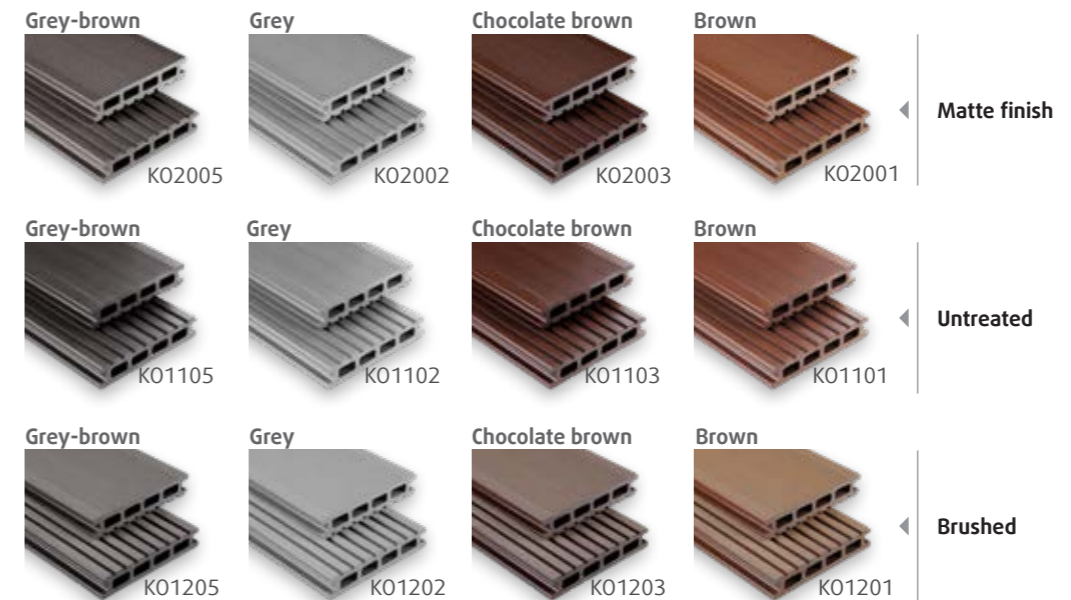
\* Please note that dimensional tolerances of -1 cm to +2 cm can occur due to cutting.

# STANDARD

## PROFILES, SURFACE FINISHES AND COLOURS

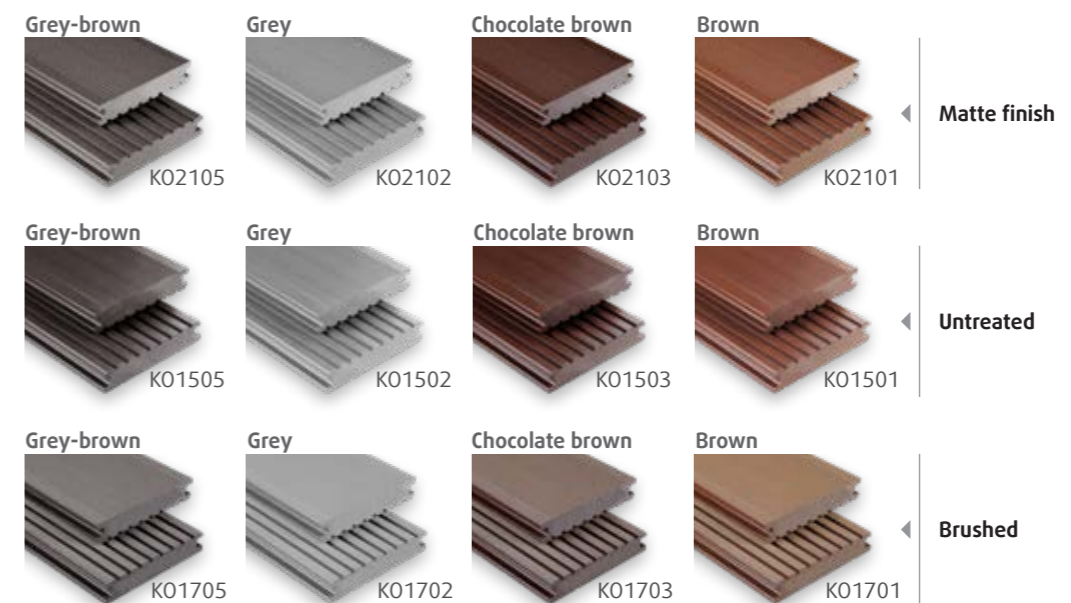
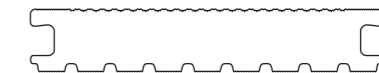
### HOLLOW CHAMBER PROFILE

- > Width: 145 mm, height: 26 mm
- > Substructure spacing: 45 cm (axial dimension\*)
- > Required decking boards for 1 m<sup>2</sup>: approx. 6.7 RM



### FULL PROFILE

- > Width: 145 mm, height: 26 mm
- > Substructure spacing: 45 cm (axial dimension\*)
- > Required decking boards for 1 m<sup>2</sup>: approx. 6.7 RM



\* The axial dimension is measured in each case from the centre of two neighbouring substructures.

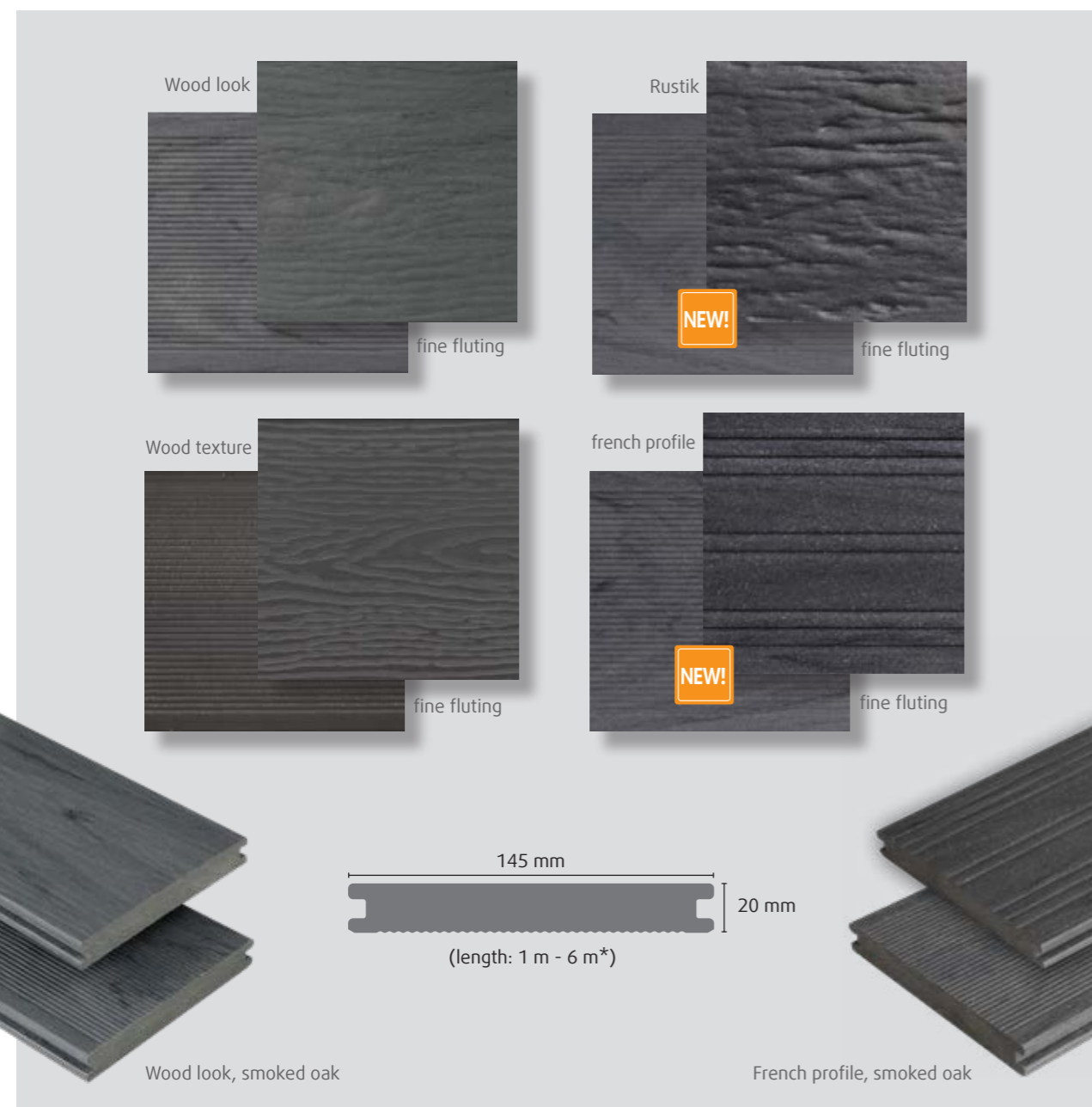
# SOLID WITH TEXTURE

## UNIQUE AND EFFECTIVE

With its clearly identifiable profile in a wood effect or wood texture or in the heavily textured look Rustic, the solid board not only looks like piece of nature, but also feels that way, too. The board gains its unique character thanks to the intense colour and textured surface. In contrast, the French profile offers clear, unmistakable lines.

### KOVALEX® SOLID WITH TEXTURE IN PROFILE

Kovalex® Solid with texture is available as a solid profile and can be laid on either side. Thanks to the different fluting, you have the choice between a surface with embossed wood grain and clear lines.



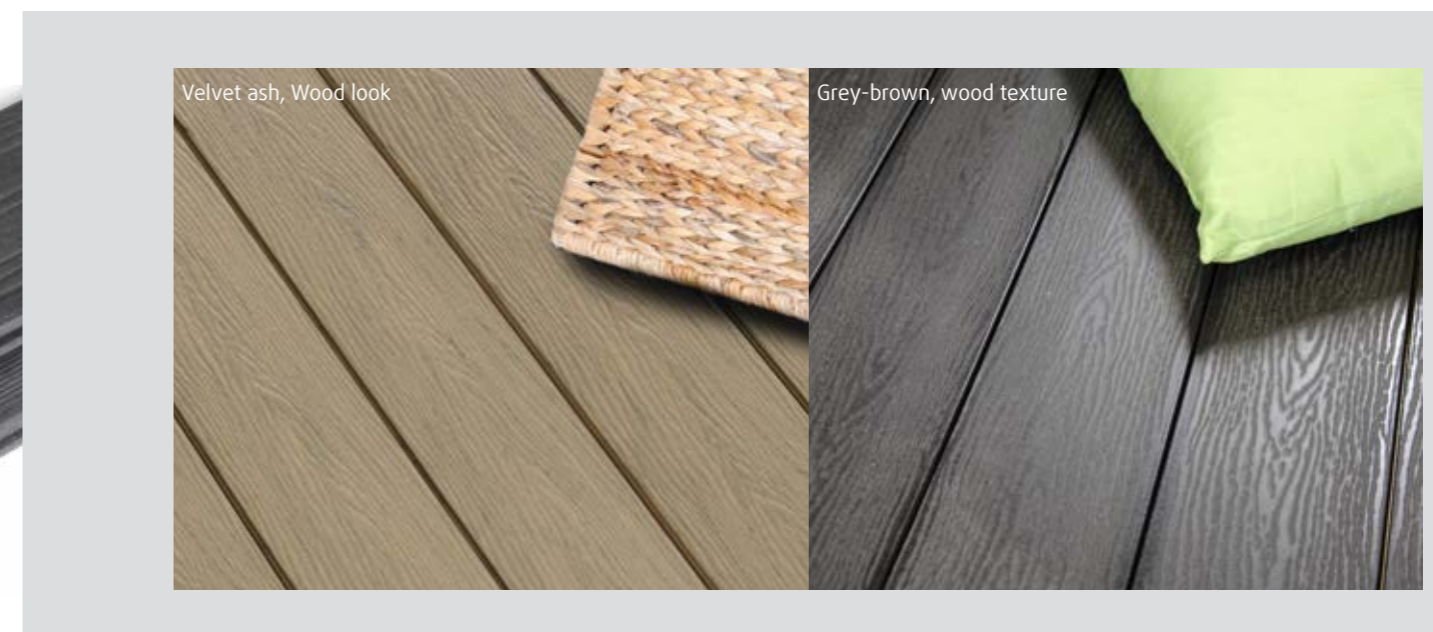
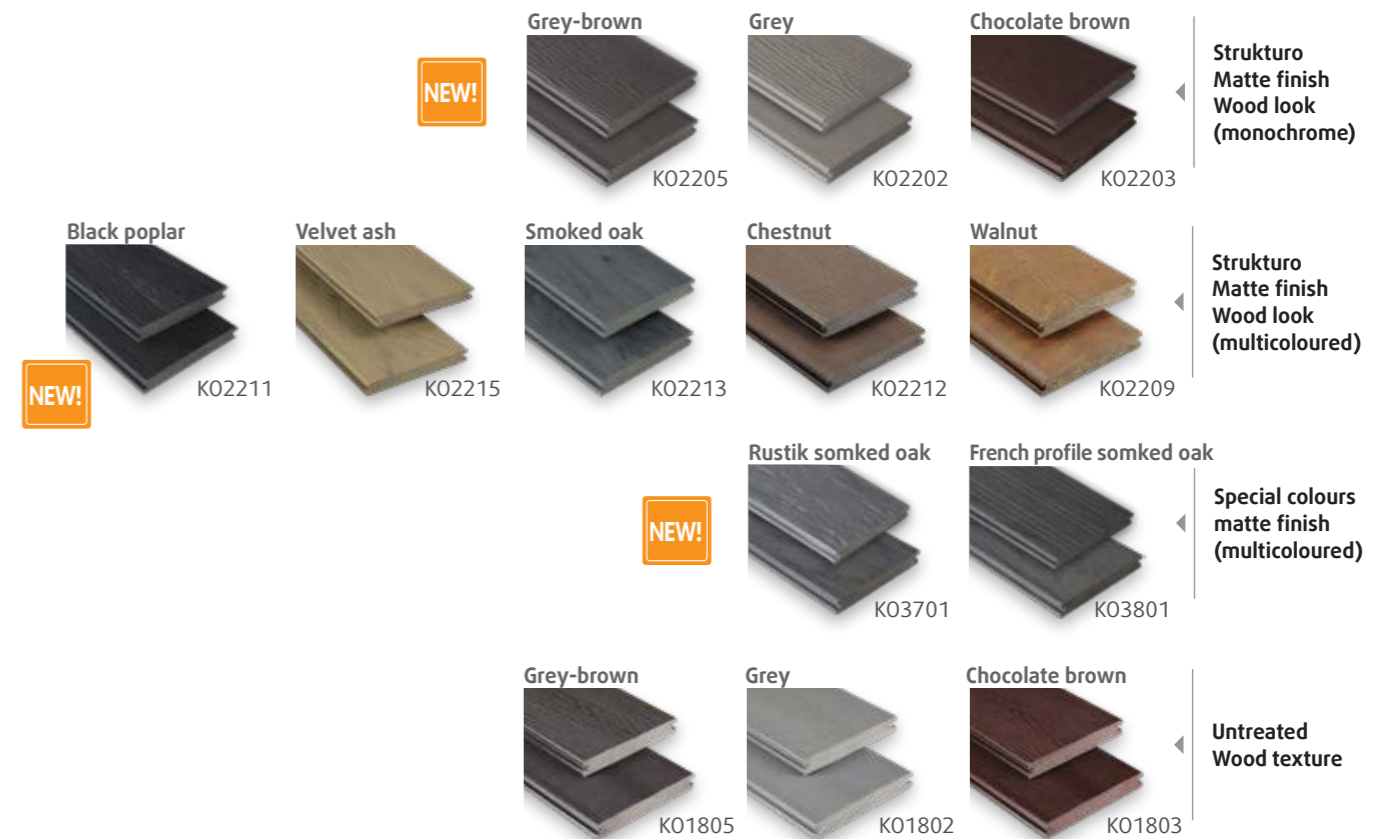
\* Please note that dimensional tolerances of -1 cm to +2 cm can occur due to cutting.

# SOLID WITH TEXTURE

## PROFILES, SURFACE FINISHES AND COLOURS

### FULL PROFILE

- > Width: 145 mm, height: 20 mm
- > Substructure spacing: 30 cm (axial dimension\*)
- > Required decking boards for 1 m<sup>2</sup>: approx. 6.7 RM



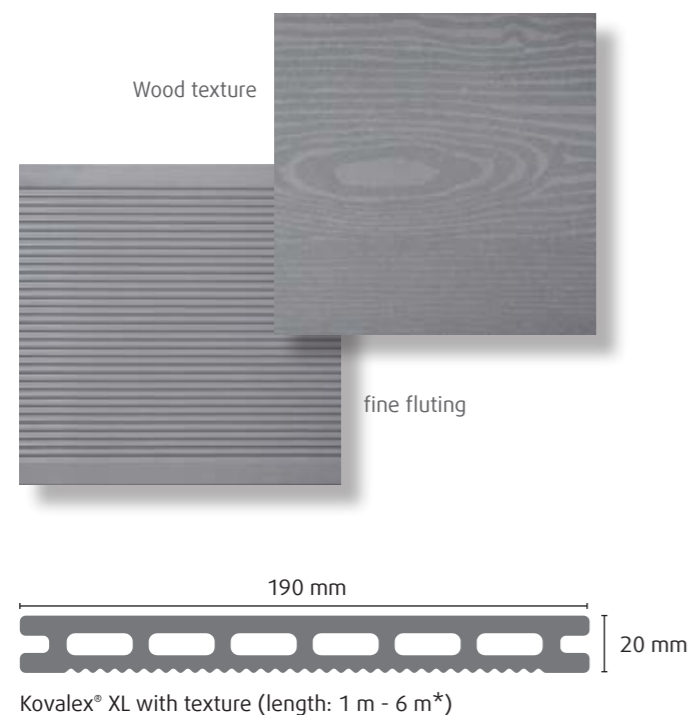


# XL WITH TEXTURE WIDE AND CHARACTERISTIC

With a board width of 190 mm, our XL board is particularly suitable for larger patios. The combination of surface structure and much wider dimensions means that the structure of the wood is shown off even better and more impressively.

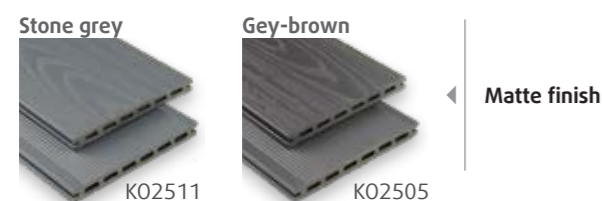
## KOVALEX® XL WITH TEXTURE IN PROFILE

For its size, the Kovalex® XL board is a real lightweight. It achieves this with its hollow chamber profile. Thanks to the different fluting, you have the choice between a surface with embossed wood grain and clear lines.



## HOLLOW CHAMBER PROFILE AND COLOURS

- > Width: 190 mm, height: 20 mm
- > Substructure spacing: 30 cm (axial dimension\*)
- > Required decking boards for 1 m<sup>2</sup>: approx. 5.1 RM



\* Please note that dimensional tolerances of -1 cm to +2 cm can occur due to cutting.

# KOVALEX® DECKING BOARDS PRACTICALLY DESIGNED

## Spend your time however you like!

**Do you like to spend time maintaining patios and balconies? No? Then it makes sense to take a look at Kovalex® from this angle, especially if you can save time and money.**

The seasons take their toll on natural wood and a lot of time and money must be invested in the patio in order to extend durability and prevent splinters and cracks. Paints, oils or other chemicals are used for this. You or a specialist company also have to invest many working hours into sanding the patio every 1-2 years, depending on the patio. This is different at Kovalex®.

Once Kovalex® is installed correctly, the weather can come - no matter whether frost, summer heat or heavy rain. WPC is a wood material, but does not get any cracks or splinters. You will also not find any other weather-typical signs of disintegration in wood with Kovalex®.

## Why Made in Germany?

**Buy cheap, buy twice. This wisdom applies to many products, unfortunately also to WPC. There is a reason for this.**

Germany, in particular, is the country of standards and directives. What might sometimes be annoying protects you from unpleasant surprises in WPC. So, don't just take a look at the board but also look at the manufacturer and inform yourself about corresponding seals of approval. Only in this way it is guaranteed that work was undertaken in accordance with firmly defined regulations for safety, components and manufacture when producing WPC. These quality standards mean that local WPC may sometimes appear somewhat weak in terms of price compared to goods from the Far East. However, if you choose the cheap material, the modest saving may come at a hefty price. If you should discover board breaks and deformation on your patio after just a short time, please pay attention to the corresponding seal of approval from the Quality Association for Wood-Based Materials when making your next purchase.

## Plastic? But of course!

**Plastic, is that necessary? Many consumers ask this and fear that they are bringing unpleasant substances into their garden. Rest assured that the plastic used is absolutely non-hazardous.**

Besides 70 % wood, Kovalex® consists of 30 % polyethylene (PE) and additives. PE is free from hazardous substances and is used in many areas within the food industry, such as for cling film or the inner coating of milk cartons. PE is also 100 % recyclable. PE is an important component in the manufacture of Kovalex®, but it gives it the dynamic and modern properties that we need to make our Kovalex® durable and barefoot-friendly, for instance.

## Cleanliness is easy!

**If you choose Kovalex®, you will opt for the simple version in terms of care.**

1. There is no need for annoying painting.
2. If a little dirt has accumulated over the winter, no problem: simply clean everything up with a pressure washer. (see cleaning instructions in the installation instructions)

## Think about the colour earlier!

**If you have the choice between wood and Kovalex®, then you should consider the following. Although many wood types look good in DIY stores, they lose their shine after just a few months.**


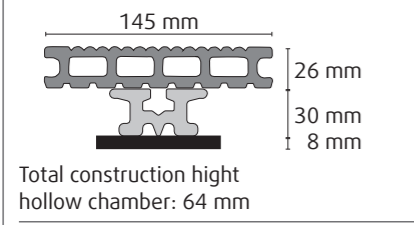
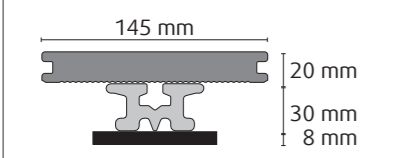
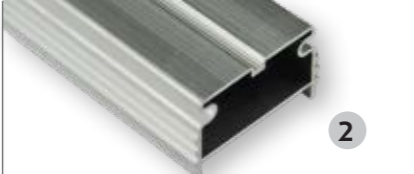
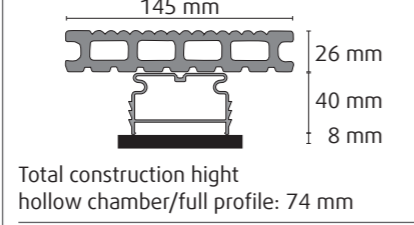
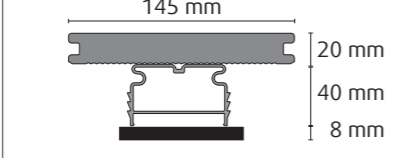
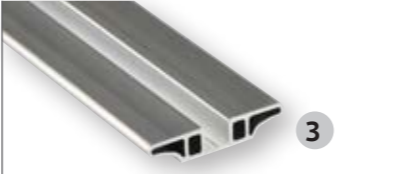
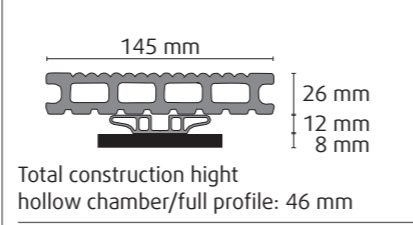
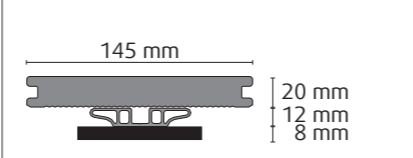
The disappointment is often great when sun, wind and weather turn the vibrant brown shade into a melancholy grey. The first sign can usually be seen after just a few weeks. With Kovalex®, you can lean back, relax and wait. The colour is generally retained with suitable care and maintenance apart from just a minor alteration.



# THE SUBSTRUCTURES

## ONE SYSTEM WITH MANY OPPORTUNITIES

Whether a patio or a pool surround: different requirements apply to the substructure in each area of application. We have developed solutions for these different requirements, which support you ideally.

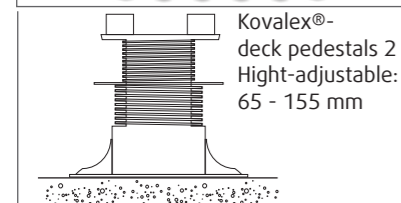
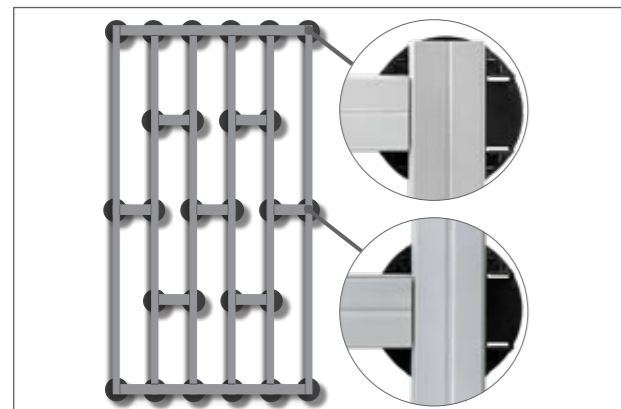
WPC substructure	Aluminium professional substructure	Aluminium substructure
 <p>Spacing of the support points on the base in a longitudinal direction: 45 cm (axial dimension*)</p>  <p>145 mm 26 mm 30 mm 8 mm Total construction height hollow chamber: 64 mm</p>  <p>145 mm 20 mm 30 mm 8 mm Total construction height full profile: 58 mm</p> <p>Deck pedestals with aluminium adapter possible!</p>	 <p>Spacing of the support points on the base in a longitudinal direction: 45 cm (axial dimension*)</p>  <p>145 mm 26 mm 40 mm 8 mm Total construction height hollow chamber/full profile: 74 mm</p>  <p>145 mm 20 mm 40 mm 8 mm Total construction height solid with texture: 68 mm</p> <p>Deck pedestals recommended!</p>	 <p>Spacing of the support points on the base in a longitudinal direction: 45 cm (axial dimension*)</p>  <p>145 mm 26 mm 12 mm 8 mm Total construction height hollow chamber/full profile: 46 mm</p>  <p>145 mm 20 mm 12 mm 8 mm Total construction height solid with texture: 40 mm</p> <p>Not for deck pedestals!</p>

\*The axial dimension is measured in each case from the centre of two neighbouring substructures

### Stiffened frame construction

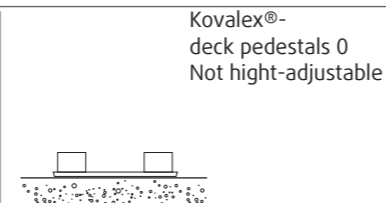
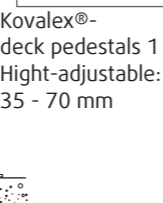
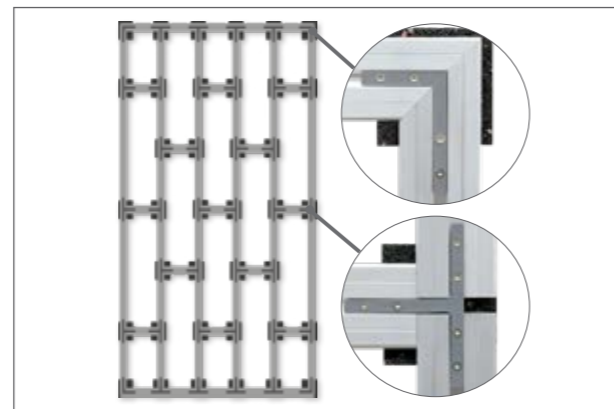
#### Example of aluminium professional substructure on deck pedestals

- The standard solution for your roof terrace.
- › No screw connections needed in the base
  - › Simple locking into the deck pedestals
  - › Fixed in place with a small number of screws



#### Example of aluminium substructure with plastic frame connectors

- The solution for particularly low construction heights.
- › No screw connections needed in the base
  - › Secure hold with plastic frame connectors
  - › Fixed in place with screws



# THE KOVALEX® DECK PEDESTALS 1&2

## LAY PATIOS MORE EASILY

### The all-rounder by your side.

Our deck pedestals 1 and 2 offer you not only huge functionality, but also an installation plate with 8 % slope compensation. If you also use our aluminium professional substructure during installation, far fewer support pads are required. This saves a great deal of weight, time and thus money. The aluminium adapter is to be used with the Kovalex® substructure (1). The aluminium professional substructure (2) is installed without adapters.

#### Aluminium adapter on Kovalex® deck pedestal

- › Infinitely height-adjustable
- › Slope compensation of up to 8 %



Beachten Sie bei der Planung und Ausführung bitte unbedingt die entsprechenden Vorgaben und Hinweise der Verlegeanleitung sowie die örtlichen Bauvorschriften und Begebenheiten.

### THE BENEFITS AT A GLANCE:

- › **Deck pedestals with slope compensation of up to 8 %**  
The fixture that can move to all sides compensates for a slope of up to 8 % on uneven terrain.
- › **Simple height adjustability**  
The double thread enables infinite height adjustment with millimetre precision with simple right/left rotation.
- › **Deck pedestal spacing of up to 75 cm**  
If you use the aluminium professional substructure together with the decking support pad during installation, you can expand the support point of the substructure from 45 cm to 75 cm in a longitudinal direction. This saves assembly time and money.
- › **Without screws with aluminium professional substructures**  
If you combine the deck pedestal with our aluminium professional substructure during installation, the substructure simply locks into the pad with pressure and a permanent connection is created without screws. Alternatively, a stiffened frame construction can also be created. No attachment to the base is necessary. You can find more precise information about this can be found in our laying instructions.

## IT'S GETTING LIGHT

### THE LED PROFILE FROM KOVALEX®

#### A system is continually expanded.

The Kovalex® LED profile is suitable for all Kovalex® boards and fits seamlessly into the available system. It is easy to install and is adhered or screwed with the available aluminium side end profiles. Our matching LED strip stands out with its high quality and the homogeneous lighting effect. Both the LED profile and the LED strip and the transformer were specially designed for outdoor use. Autumnal heavy rain is thus not a problem.

#### Proven safety when laying.

You should take care if you would like to install electricity in your garden. For this reason, always have the electricity installation conducted by a professional. There are many different providers of decking accessory components today. We guarantee an optimal connection with our existing components and, naturally, a future warranty for our built-in products. Only in this way will you enjoy your patio for a long time.

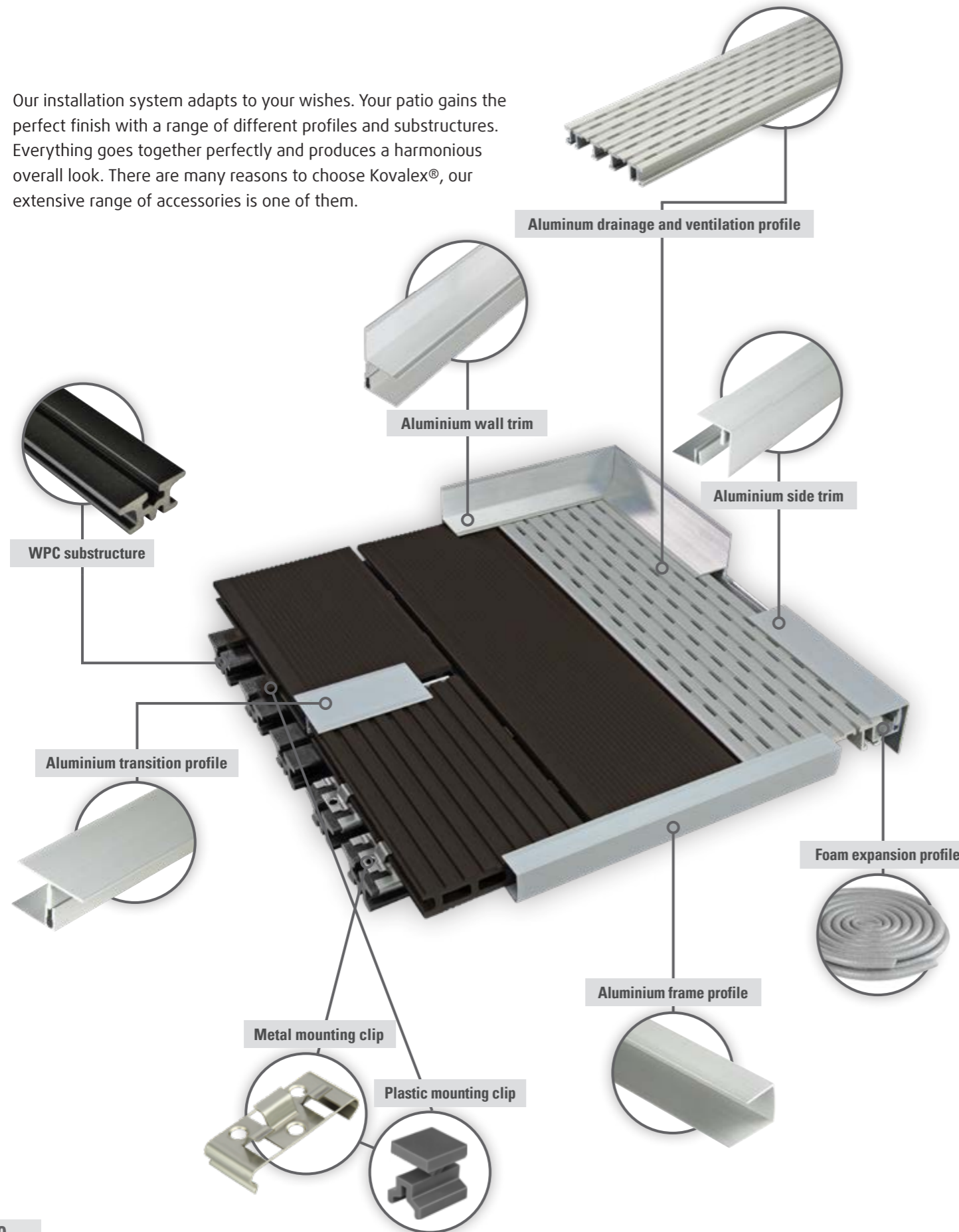




# THE SOMEWHAT DIFFERENT SYSTEM

## THERE IS A LOT TO DISCOVER

Our installation system adapts to your wishes. Your patio gains the perfect finish with a range of different profiles and substructures. Everything goes together perfectly and produces a harmonious overall look. There are many reasons to choose Kovalex®, our extensive range of accessories is one of them.

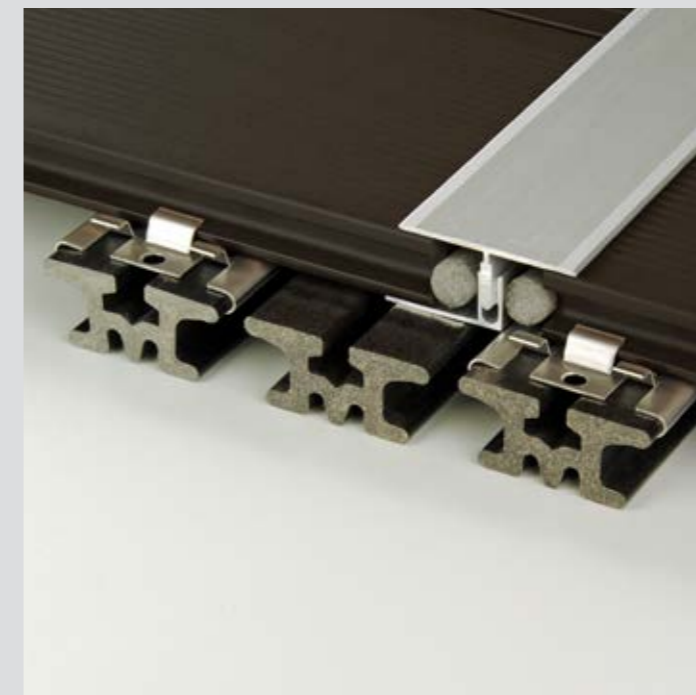


**◀ Metal and plastic clip**  
The clips ensure an even, optimum 5 mm spacing of the boards. You do not require any screws when you fix the decking with clips.



**Aluminium side trim profile**  
This profile reinforces and covers all long sides of the boards. Your patio also gains an elegant finish with the side edge profile.

**Aluminium frame profile >**  
The aluminium frame profile covers the decking board on the face side and protects against penetrating water.



**Aluminium transition profile**  
The transition profile is generally not required for standard patios (L: 6 m x W: 4 m). It is used for large areas. It covers the necessary expansion joint and creates space for the natural extension and shrinking behaviour of Kovalex®.



**Aluminium wall trim**  
The wall trim is required for a clean finish between the board and wall. It also protects against penetrating water and also ensure the necessary hold of the boards.





## IMPORTANT INFORMATION

These installation instructions are based on the specifications of the brochure "Patio and Balcony Flooring" from GD Holz and on the "Specialist Rules of the Carpentry Trade 02 Balconies and Patios". To allow to you enjoy your Kovalex® patio for a long time to come, please note the corresponding requirements and information as well as the local building regulations and conditions when planning and implementing your project. In addition, exclusively use products from the Kovalex® accessories range. No warranty can be assumed in the event of deviations from the installation instructions and any defects resulting from them. We constantly aim to improve our products and their user-friendliness. Please always ensure that your installation instructions are up to date (see back of leaflet). You can find the latest version at [www.kosche.de](http://www.kosche.de) – as a data sheet for the corresponding item. You can also find other product information there.

## GENERAL INFORMATION

The specifications of these installation instructions are based on the installation of a "standard patio" (L: 6 m, W: 4 m, with a crushed gravel or rubble bed and flagstones) and form the basis of all installation variants. It may be necessary to make on-site adjustments for the installation on an individual basis. To prevent damage, the goods must always be protected, covered (lightproof and waterproof) and stored completely

## TYPICAL MATERIAL PROPERTIES

Compared to solid wood, the surface temperature of patio coverings made from WPC is around 10% higher. Dark shades are naturally warmer than light shades. In sunny locations (such as pool surrounds), this can partially restrict use if the boards come into direct contact with skin. Depending on the construction, climate and local conditions, a WPC patio may also become statically charged in rare cases.

Due to their high wood content (approx. 70%), the Kovalex® decking boards have the typical properties of untreated solid wood. It is thus completely normal for the boards to swell (expansion) and shrink (contraction). Minor deviations in colour, brushing and shading, both between the individual boards and within a single board, are desired and thus do not represent grounds for complaint. We recommend getting samples of the shades.

Like any wood or any wood material, WPC also undergoes a natural maturation process, which is determined by different weather conditions. An attractive patina, which supports the natural character of the decking boards, will thus also develop on the surface of the Kovalex® boards over time. This effect is somewhat more pronounced for boards with a brushed surface than for boards with an untreated or matte surface.

UV radiation from the sun can change the colour of the boards. Depending on the strength of the radiation, the surface of the boards

## CARING FOR THE MATERIAL

In contrast to solid wood, annual painting is not necessary. If desired, however, the colour can be freshened up by applying WPC oil once an even patina has developed. Before applying the oil, the patio is to be cleaned thoroughly with water and WPC cleaner. The surface must be completely dry and free from dust and grease. Apply the oil to the boards with a brush in a very thin, even coat in a lengthways direction and briefly allow it to soak in (max. 10 min.). Then collect up the excess oil with a dry, absorbent cloth and allow the surface to dry for at least 24 hours in good weather (no rain!) (observe the WPC oil manufacturer's instructions!).

Like a solid wood patio, fine dirt particles can always be found on the surface of the boards, which are loosened or gathered together by rain and remain on the boards after drying. These then become visible as dark edges – called water stains – especially in the area that marks the transition from the covered to the open areas. Due to the roughened surface, water stains are somewhat more noticeable

level from delivery up to and during installation. Please use our Kovalex® system exclusively to construct patios or balconies. In addition, we accept no liability if third-party materials are used. Please note that Kovalex® decking boards are not manufactured according to RAL shades and may deviate from samples.

is lightened and can thus lose some of its colour intensity. This effect can be seen to different degrees depending on the colour and surface treatment.

In contrast to brushed boards, untreated and matte boards have a closed surface and are thus less sensitive to stains.

Untreated floor boards have a slightly shiny surface due to how they are made. However, after approx. 6-8 months (depending on weathering), the shine decreases significantly and the boards gain their final look. The surface of lighter-coloured boards with a brushed surface (e.g. grey, brushed) appears slightly yellow shortly after installation. However, depending on weathering, this largely disappears again after a few months. For solid boards with texture in a wood effect, these are boards with a natural colour gradient, which is achieved by adding various colours. This allows us to achieve a high degree of variability in how the wood grain is presented, very similar to nature. As a result, intentional colour deviations do not represent grounds for complaint.

Due to the high wood content, there may be small fibre inclusions in the boards. Over the course of natural weathering (water absorption), these can swell slightly and become visible on the surface of the boards. However, these particles largely disappear again with normal use of the patio. This does not cause any damage or impairment to the boards.

**on boards with a brushed surface than on boards with an untreated or matte surface. However, this does not impair the quality of the boards, which is why water stains are also not grounds for complaint.** Such stains can usually be removed with clear water and conventional cleaning equipment (long-handled scrubbing brushes and the like).

A slope in the longitudinal direction of the boards ensures that dirt particles are washed off the boards when it rains. In conjunction with regular cleaning, the formation of water stains can thus be reduced.

Once the patio is completed, the entire surface must be cleaned (first cleaning) with water and conventional cleaning equipment (long-handled scrubbing brushes and the like) and also cleaned thoroughly at least twice a year. We recommend carrying out this maintenance clean at least in autumn and after the winter. To prevent long-term damage, the patio should also be regularly cleared of snow.

## PLANNING PRINCIPLES

### BASE AND SUBSTRUCTURE

- › For areas of use that require approval from the building authorities (e.g. for self-supporting constructions), the Kovalex® patio system may only be used in conjunction with a statically sufficiently dimensioned, load-bearing and fall-through-proof substructure. Use for construction applications is not approved.
- › The base must fundamentally be solid, load-bearing and frost-proof.
- › A surrounding curb is required for patios at ground level. It is imperative that you prevent the decking surface from coming into direct contact with the lawn or soil. The spacing between the curbstones and the decking boards or trim profiles must be at least 2 cm in order to ensure sufficient rear ventilation.
- › A compacted base of gravel or rubble is to be provided for a patio on

### SUBSTRUCTURE

- › **As a rule, the substructure profiles must always be screwed to every support point. All holes are to be pre-drilled according to the screw diameter.**
- › Areas with a higher surface load (e.g. due to flower pots, parasol stands, etc.) must be reinforced with additional substructure profiles (substructure distance from centre to centre: max. 15 cm). This is to be taken into account during planning.
- › To ensure good air circulation (rear circulation/underside ventilation) for the entire patio structure, cavities between and below the substructure profiles may not be filled. In addition, the ends of the hollow chamber profiles may not be sealed tightly as water accumulation and frost damage can otherwise occur.
- › **To allow the individual patio elements to expand without any problems, a spacing of at least 2 cm must be maintained from fixed components (e.g. building wall, downpipe, railings, etc.). In addition, the specified minimum spacings for the expansion joints are to be observed.**
- › **It is not permitted to screw through the Kovalex® floor boards.**
- › **Die Kovalex®-Bodendielen dürfen nicht durchgeschraubt werden.**
- › When fixing substructure profiles or the aluminium attachment profiles in place, all holes must fundamentally be pre-drilled and countersunk.

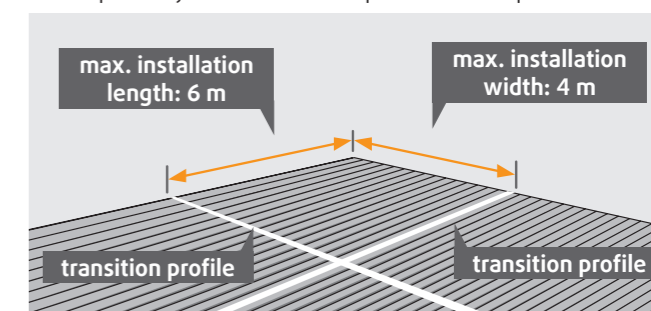
### BOARDS

- › A slope of at least 1% (1 cm/RM) in the longitudinal direction of the boards must generally be observed to prevent water accumulation and any subsequent damage<sup>(1)</sup>.
- › If a pool is incorporated, the slope of the boards should be oriented so that water run-off does not go into the pool area.
- › During installation, a uniform laying direction must be ensured. This is shown by the arrow affixed in the board groove.
- › Like solid wood, not every board is uniform and of the same colour. By using different sizes of wood fibres, slightly different surfaces are also created. To emphasise the natural look of the Kovalex® patio, the boards are to be mixed up before laying.
- › Before installation, the floor boards are also to be laid out on the prepared base and checked for any damage or other product defects.
- › Only complete boards are to be installed across the entire patio surface (width). Making boards narrower can lead to the deformation of individual boards.
- › In addition, the boards should not be cut at an angle of more than 45° (see illustration).
- › **The boards are not ready for installation and may need to be trimmed beforehand.**
- › **Dimensional tolerances can occur with regard to length, width and thickness due to how the boards are made (technical data, p. 32).**

natural soil. Adequate drainage must be ensured here (if applicable, also incorporate a drain) and a slope of at least 1% (1 cm/RM) must be observed in the direction of the boards that will subsequently be laid (longitudinal direction).

- › Contact with the soil and/or permanent contact with water is to be avoided for all Kovalex® patio elements.
- › Special measures and regulations must be observed for roof terraces and elevated constructions. Please consult your architect or the corresponding experts in this regard. Here, too, the local conditions and regulations, such as the flat roof guidelines from the German roofing trade, must be taken into account during implementation.

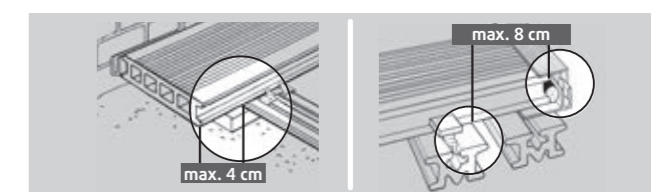
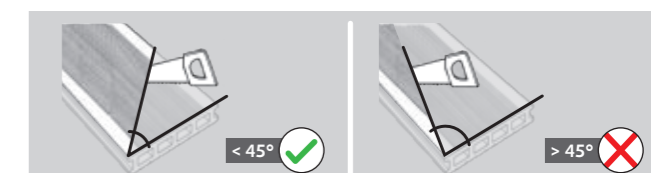
- › An expansion joint or a transition profile must be planned once an



- › installation width of 4 m or an installation length of 6 m is reached.
- › An additional row of substructure profiles must be installed (installation instructions, point 10.) to fix the required aluminium attachment profile in place.
- › During the planning and installation of the transition profiles, it must be ensured that the boards to the left and right of the transition profile are not cut narrower.

**These tolerances are to be taken into account in planning and during installation.**

- › **The board overhang (distance between the last attachment point (clip) and the end of the board) may be a maximum of 4 cm (a maximum of 8 cm when using the aluminium side trim profile). Otherwise, the boards may become deformed.**





## INSTALLATION<sup>(2)</sup>

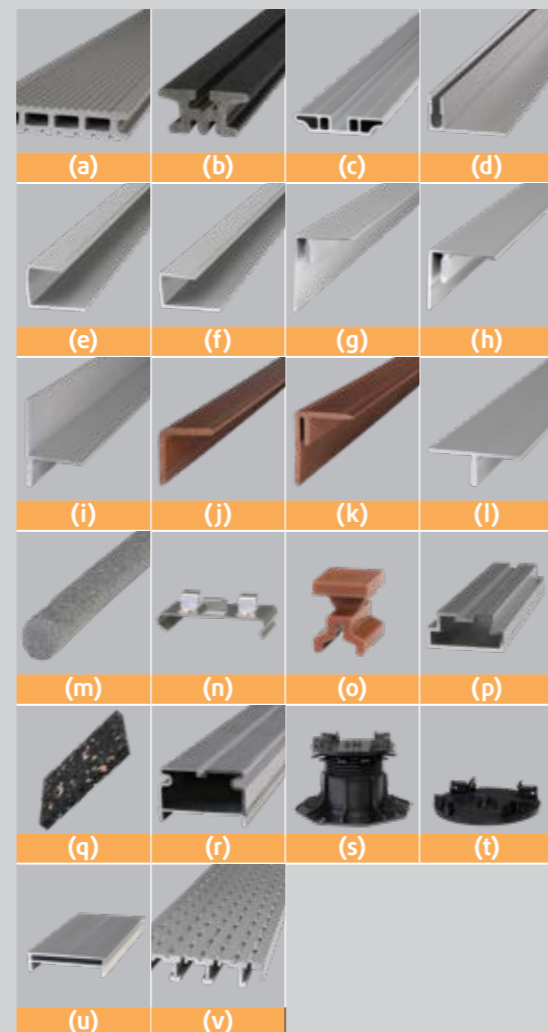
### IMPORTANT INFORMATION

Please read the entire installation instructions including the planning principles and general information before starting installation!

The guidance included in these instructions only serves as clarification and cannot replace or be construed as a substitute for installation by a professional. We also recommend the drafting of an installation plan.

### ACCESSORIES

- (a) > Kovalex® floor boards
- (b) > Kovalex® WPC substructure
- (c) > Aluminium substructure
- (d) > Aluminium attachment profile (each packaged in a set with: Kovalex® side trim, aluminium side trim, aluminium side trim 41, aluminium wall trim and aluminium transition profile)
- (e) > Aluminium edging profile
- (f) > Aluminium edging profile 20 mm
- (g) > Aluminium side trim (2-part, incl. aluminium attachment profile (d))
- (h) > Aluminium side trim 41 (2-part, incl. aluminium attachment profile (d))
- (i) > Aluminium wall trim (2-part, incl. aluminium attachment profile (d))
- (j) > Kovalex® side trim
- (k) > Kovalex® wall trim
- (l) > Aluminium transition profile (2-part, incl. aluminium attachment profile (d))
- (m) > Foam expansion profile (Ø 15 mm)
- (n) > Metal mounting clip
- (o) > Plastic mounting clip
- (p) > Connector
- (q) > Wood and structural preservation base
- (r) > Aluminium professional substructure
- (s) > Deck pedestal 1+2
- (t) > Deck pedestal 0
- (u) > Aluminium adapter
- (v) > Aluminium ventilation and drainage profile



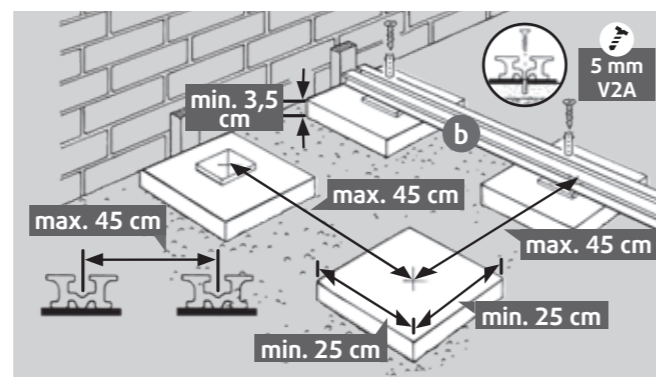
Tools: Kovalex® can be sawn, milled or drilled with all conventional woodworking tools. For installation, you require: Spirit level, folding ruler, hammer, saw, drill, cordless screwdriver, wooden spacers, screws and dowels. The required protective clothing must always be worn when working with the products.

### 1.a BASE WITHOUT DECK PEDESTALS

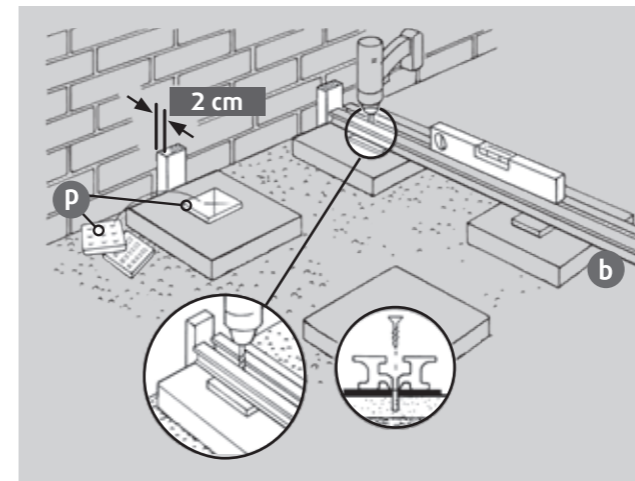
Note minimum distances!

Maximum distance (axial dimension<sup>(3)</sup>) between the substructure profiles (b): 45 cm (for floor boards with a thickness of 20 mm: max. 30 cm).

The substructure profiles (b) are to be screwed to every support point. (Otherwise, the substructure must be designed as a torsionally rigid frame construction. Please also note the corresponding installation instructions for deck pedestals.)

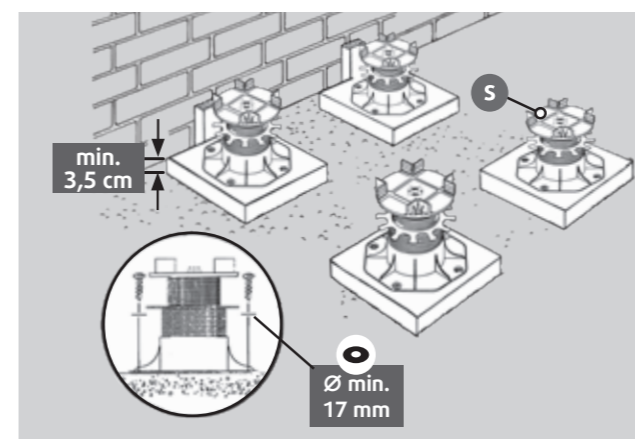


To affix the WPC substructure to flagstones, use the fastening screws 7.5 x 52 mm for screw mounting without dowels. For the aluminium substructure, use stainless steel round-head screws Ø 5 mm in a suitable length and dowels suitable for the base. The length and design of the screws must always be matched to the respective base.



### 1.b BASE WITH DECK PEDESTALS

To affix the deck pedestals to flagstones, use the fastening screws 7.5 x 42 mm for screw mounting without dowels. For a base other than flagstones, the length and design of the screws must be matched to the respective base and screw mounting with dowels may then be necessary.

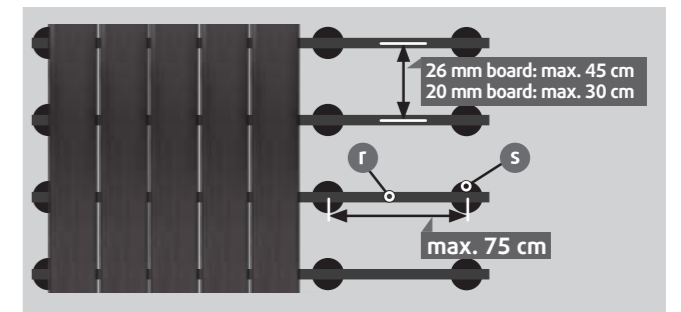


### MAXIMUM DISTANCES

Deck pedestals (s) and aluminium professional substructure (r) are perfectly coordinated with each other. Maximum distance (axial dimension<sup>(3)</sup>) between the deck pedestals when using the aluminium professional substructure: max. 75 cm.

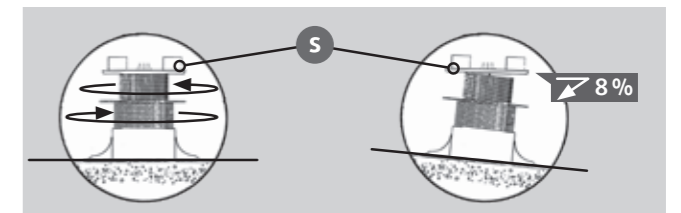
When using the WPC substructure (b): max. 45 cm.

The board-specific maximum distance between the substructure profiles (45 or 30 cm) must, however, also be complied with when using the aluminium professional substructure (illustration).



### FUNCTIONS OF THE DECK PEDESTAL (S)

The double thread of the deck pedestal enables infinite height adjustment with millimetre precision with simple right/left rotation. Please find the max. or min. height in the brief description on the product packaging. The top of the deck pedestal, which can move to all sides, compensates for base unevenness of up to 8% and helps to create the necessary slope.



### FUNCTIONS OF THE DECK PEDESTAL (S)

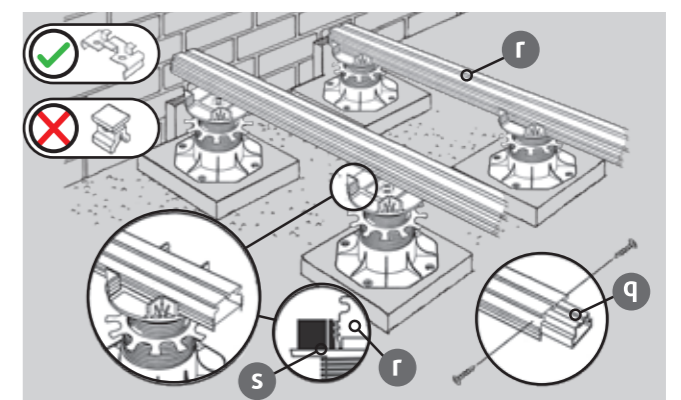
The aluminium professional substructure (r) has specially serrated fluting on the longitudinal side. The aluminium professional substructure locks into the corresponding brackets in the deck pedestal by simply pushing down and pressing firmly.

The aluminium professional substructures must also be screwed to the first and last deck pedestal (tapping screw 3.9 x 13 mm, V2A).

With the specially developed connector (q), the aluminium professional substructure can be extended in a way that optimises waste without compromising load-bearing capacity.

The connector is simply slid into the aluminium professional substructure and fixed in place with the screws supplied.

Only use metal mounting clips to fix the boards in place!



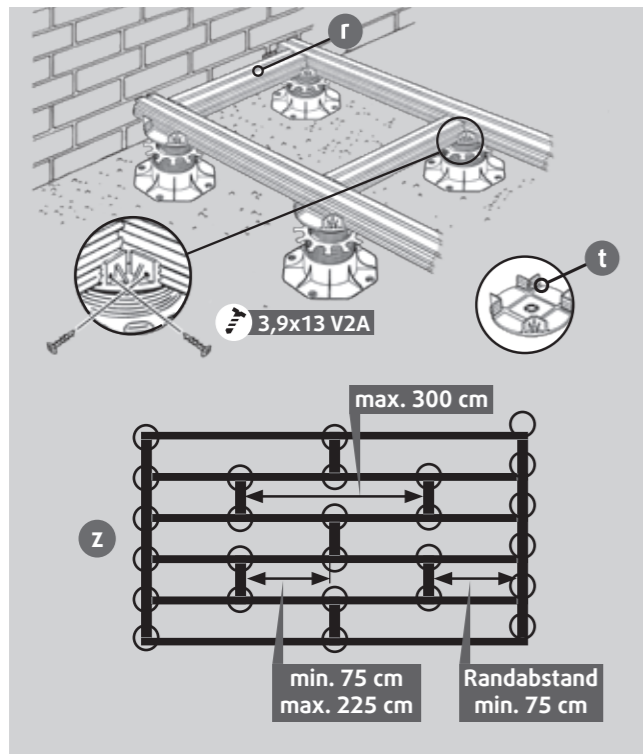


## ALUMINIUM PROFESSIONAL SUBSTRUCTURE AS A FRAME CONSTRUCTION

If the deck pedestals cannot be screwed to the base, the substructure must be designed as a torsionally rigid frame construction. This gives the structure the necessary stability and rigidity.

The cross pieces required for the frame construction are to be arranged offset between the longitudinally laid substructures and locked into the deck pedestals on both sides (see illustration). All substructures must also be screwed to the deck pedestals in the areas provided (tapping screw 3.9 x 13 mm, V2A). Only in this way is the substructure guaranteed to have sufficient rigidity.

As an alternative to the deck pedestal, our deck pedestal 0 (t) can also be used for small construction heights. The above-mentioned fixing instructions for the aluminium professional substructure apply equally. Torsionally rigid substructure (z).

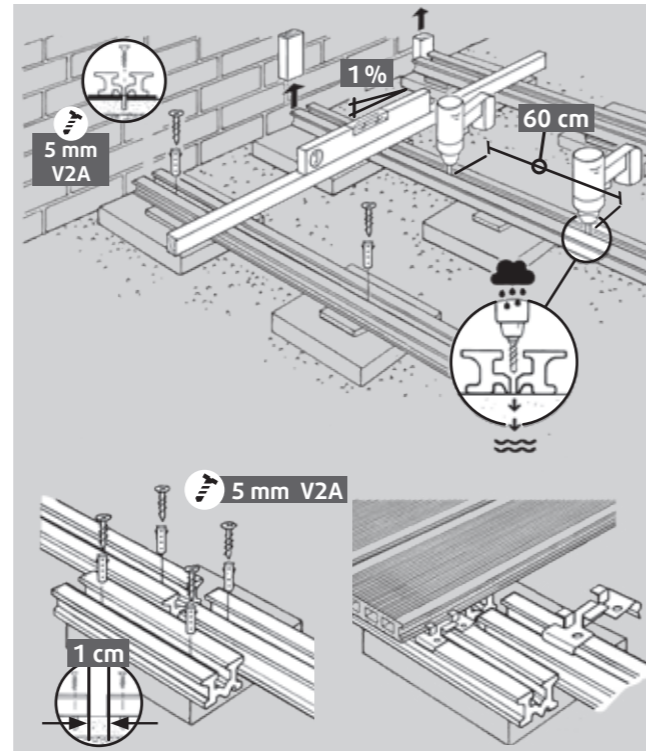


### 2. KOVALEX® SUBSTRUCTURE

When laying the substructure, a distance of at least 1 cm must be maintained between the individual substructure profiles on the face side. A hole (Ø 8 mm) must also be drilled in the substructure every 60 cm to prevent water accumulation. Please note that the overhang of the boards (distance between the last attachment point (clip) and the end of the board) may be max. 4 cm (illustration: General information/boards).

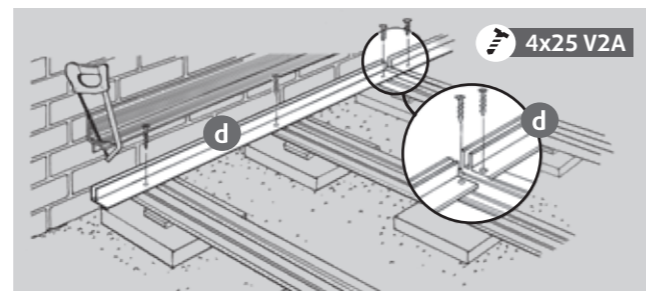
To ensure the boards remain firmly in place, the expansion joint between the substructure profiles must be bridged with a substructure at least 20 cm long, if necessary, or the profiles must be laid parallel.

Before you begin laying the Kovalex® floor boards, you must select the corresponding trim profiles. See here the two possibilities for the wall trim under point 8 and the two possibilities for the side trim under point 9. All trims can be laid with a 45° mitre(4).



### 3. TRIM PROFILES/ATTACHMENT PROFILES

Before laying the first board, the attachment profiles (d) must be screwed to the substructure (stainless steel countersunk head screw: 4 x 25 mm; pre-drill (Ø 3 mm) and countersink!). If necessary, additional substructures must be laid to install the attachment profiles.



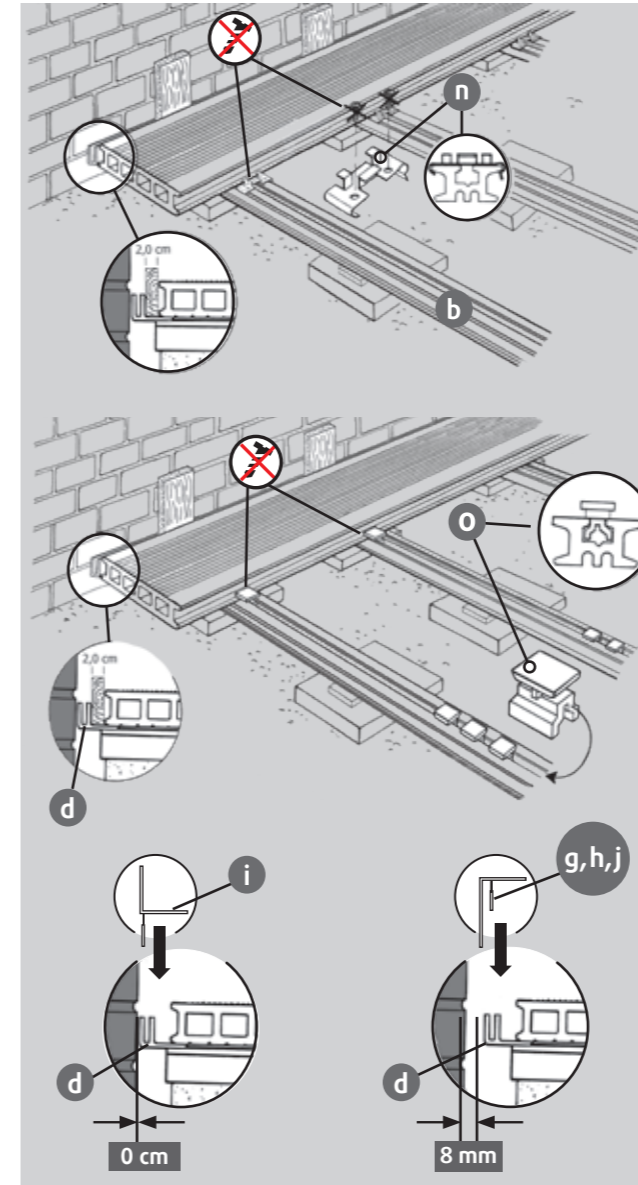
### 4. First decking board

To lay the first decking board, spacers 2 cm thick must be used and remain in place until the trim profiles are installed. In conjunction with the Kovalex® substructure, the boards can be fixed in place both with plastic mounting clips (o) and with metal mounting clips (n).

Metal mounting clips can be clipped to any part of the substructure.

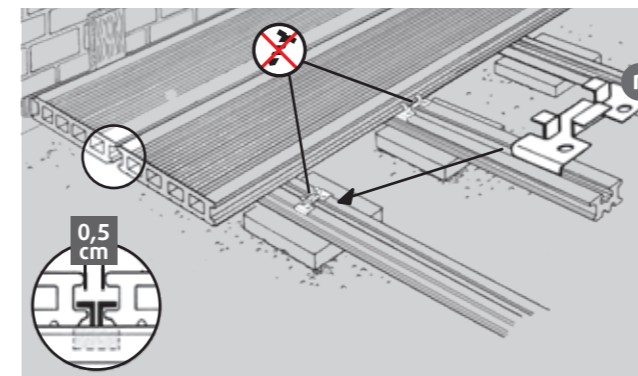
Plastic mounting clips, however, must be inserted one after the other the corresponding guiding groove in the Kovalex® substructure (b).

Mixing the clips is not permitted. When using the aluminium substructure and the aluminium professional substructure, metal mounting clips must be used exclusively. When installing the boards, ensure they are all laid in the same direction (see sticker in the groove of the board).



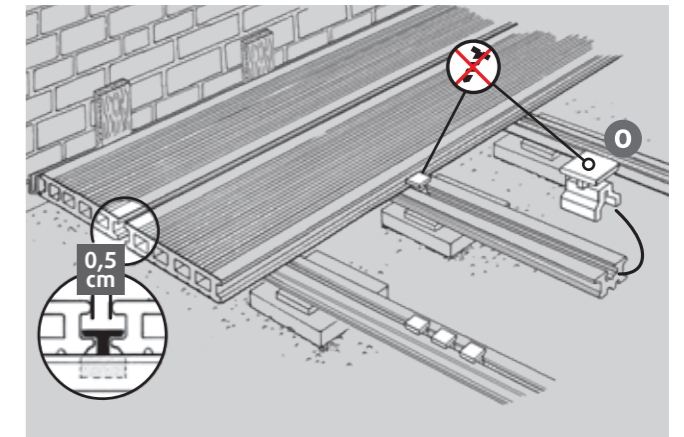
### 5.a LAYING OF THE BOARDS WITH METAL MOUNTING CLIPS (N)

Do not screw or glue the clips – insert into the groove!

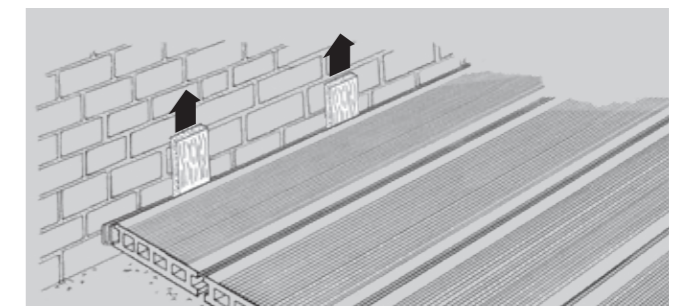


### 5.b LAYING OF THE BOARDS WITH PLASTIC MOUNTING CLIP (O)

Do not screw or glue the clips – insert into the groove!



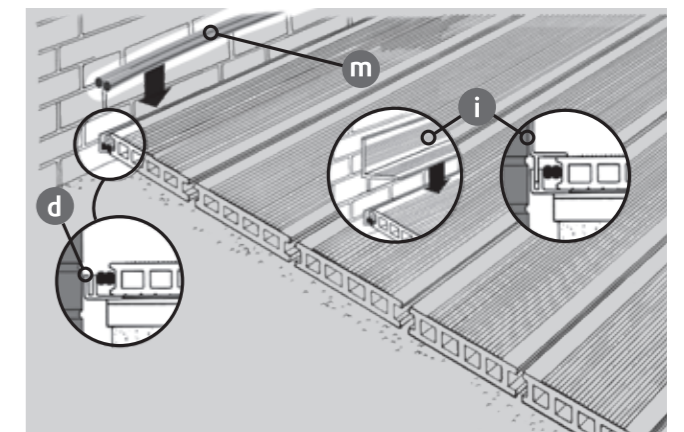
### 6. REMOVE SPACERS



### 7. FOAM EXPANSION PROFILE

Two foam expansion profiles (m) are placed in the aluminium attachment profile (d) and inserted into the aluminium wall trim(5) (i).

The following must be noted:(6)

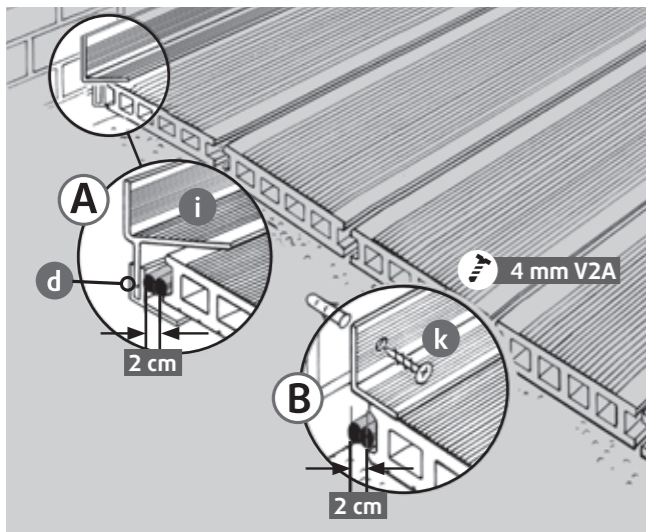




### 8. WALL TRIM

**Option (A):**  
Aluminium wall trim<sup>(5)</sup> (i) incl. aluminium attachment profile (d).  
**The following must be noted:<sup>(6)</sup>**

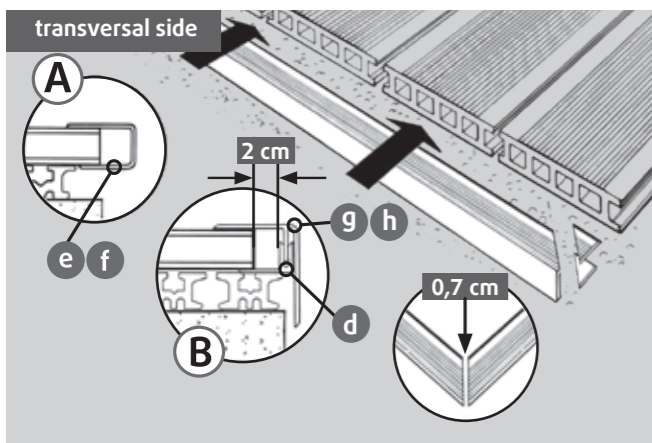
**Option (B):**  
Screw the Kovalex® wall trim (k) into the wall with stainless steel round-head screws (Ø 4 mm) at a distance of approx. 40 cm (pre-drill Ø 4 mm). The length and design of the screws must be matched to the base.



### 9. SIDE TRIM TRANSVERSAL SIDE

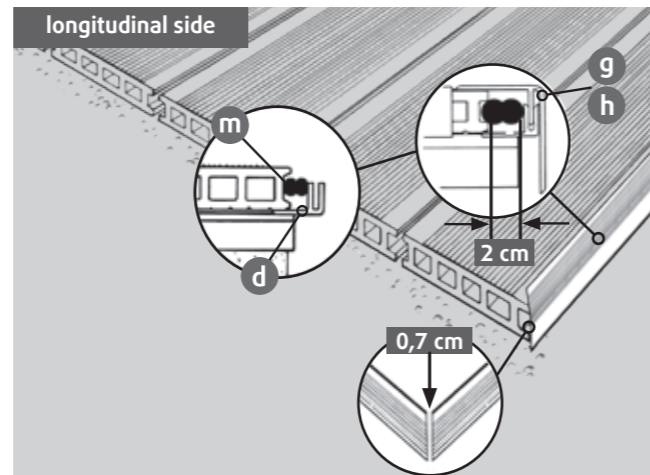
**Option (A):**  
Aluminium edging profile<sup>(5)</sup> (e)(f)  
The wider side must be placed on the visible side of the boards. A board overlap of approx. 2-3 cm must also be maintained. **Please note that the aluminium edging profile 20 mm<sup>(5)</sup> must be used with the floor board 20 mm, the solid board with texture and the floor board XL.**

**Option (B):**  
Kovalex® side trim (j) incl. aluminium attachment profile or aluminium side trim<sup>(5)</sup> incl. aluminium attachment profile (d). Additional substructure profiles must be laid to install the aluminium attachment profile (g)(h)!  
**When using the aluminium substructure, exclusively the aluminium side trim 41<sup>(5)</sup> incl. aluminium attachment profile can be used.**  
**The following must be noted:<sup>(6)</sup>**



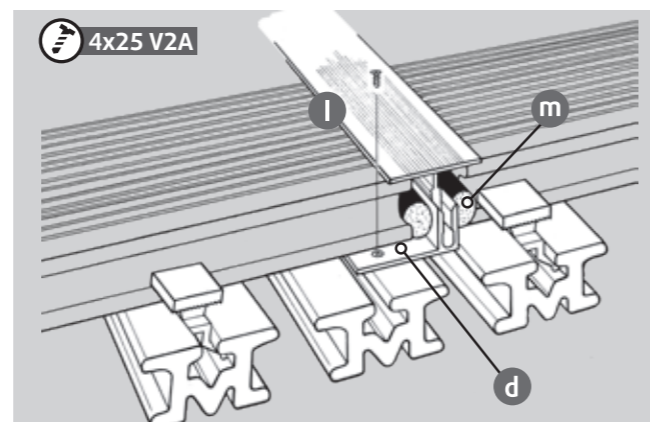
### SIDE TRIM LONGITUDINAL SIDE

Kovalex® side trim (j) incl. aluminium attachment profile (d) or aluminium side trim<sup>(5)</sup> (g)(h) incl. aluminium attachment profile (d).  
**When using the aluminium substructure, exclusively the aluminium side trim 41<sup>(5)</sup> incl. aluminium attachment profile (d) can be used.**  
**The following must be noted:<sup>(6)</sup>**



### 10. TRANSITION PROFILE

Expansion joints can be covered with the aluminium transition profile<sup>(5)</sup> (l) incl. aluminium attachment profile (d). Two additional rows of substructure profiles must be laid for the installation of the aluminium attachment profile and for another row of clips!  
**The following must be noted:<sup>(6)</sup>**



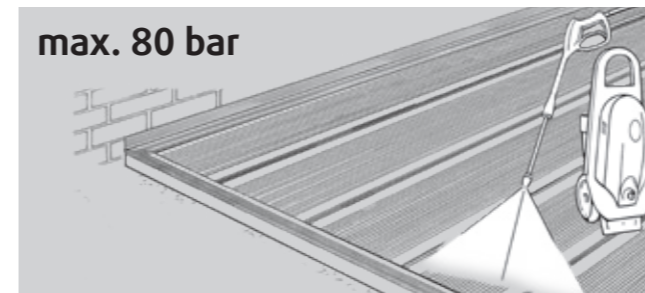
**For head-to-head laying** (e.g. linear plank/see picture), two clips must be used both **at the beginning and at the end of the floor board.** **Additional substructure profiles must also be planned for this. A distance of at least 1 cm must also be maintained on the face side between the boards.**

Please note that the floor boards expand to different degrees, which may result in an irregular joint pattern with head-to-head laying.



### 11. CLEANING/MAINTENANCE

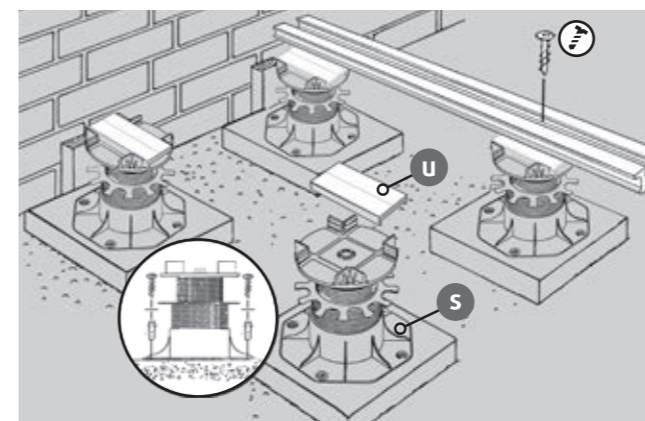
The surface can be cleaned with clear water and conventional cleaning equipment (e.g. long-handled scrubbing brushes and the like). Heavier soiling can be removed with the Kovalex® decking board cleaner. Perform pressure washing with max. 80 bar pressure and a minimum distance of 20 cm from the WPC surface.



### SPECIAL SOLUTIONS

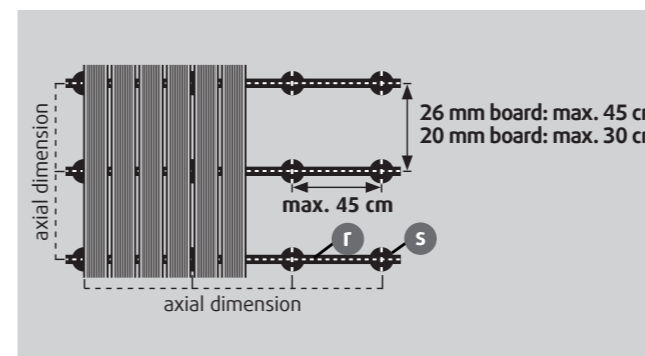
#### Fixing Kovalex® WPC substructure (b) to the deck pedestal (s):

The substructure (b) is fixed to the deck pedestal (s) with the aid of a special aluminium adapter (u). An adapter must first be inserted into and pushed down on every deck pedestal. **The substructure profiles must then be screwed firmly to the adapters** (countersunk head tapping screw 4.2 x 32 mm, V2A). **The deck pedestals are also to be screwed to every support point (point 1.b).**



#### Maximum distances:

The maximum distance between the deck pedestals (s) is 45 cm when using the above-mentioned substructures (b). Please note the board-specific maximum distance between the substructure profiles of 45 or 30 cm (see illustration).

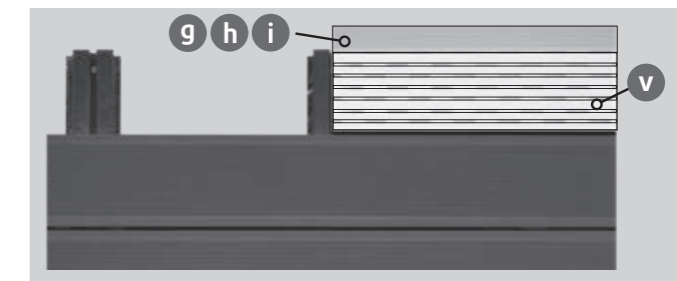


#### Ventilation and drainage profile<sup>(5)</sup> (v)

If the base has the correct slope, the ventilation and drainage profile<sup>(5)</sup> (v) ensures standard-compliant water drainage in areas in front of doors, floor-level windows and large glass fronts. The profile also improves the rear ventilation of the patio area. The ventilation and drainage profile is available in the thicknesses 20 mm and 26 mm. Depending on the laying direction of the boards, there are two installation options:

#### Option (A):

The ventilation and drainage profile<sup>(5)</sup> is fixed to the substructure with clips and an aluminium trim profile.



#### Option (B):

The ventilation and drainage profile<sup>(5)</sup> is visibly screwed to separate sections of the substructure (length: 140 mm) (pre-drill and countersink). Use the corresponding countersunk-head screws:

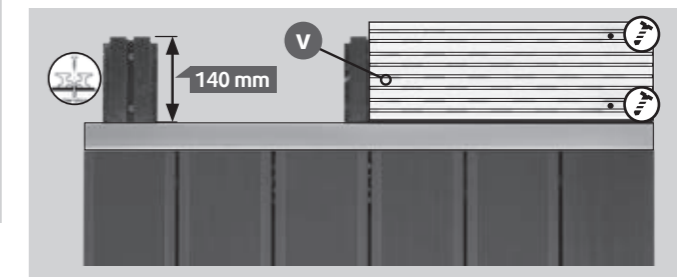
**Aluminium substructure:** 26 mm Board: Tapping screw 3.5 x 32 mm, V2A

20 mm Board: Tapping screw 3.5 x 25 mm, V2A

**Professional substructure:** 26 mm Board: Wood screw 3.5 x 50 mm, V2A

20 mm Board: Wood screw 3.5 x 45 mm, V2A

**Important! Every section of the substructure must be fixed to the base with two screws (point 1.a and 1.b).**



(1) The Kovalex® floor board Standard Full Profile and the Kovalex® Solid board with texture can also be laid without a slope.

Please bear in mind that increased cleaning is to be expected when laying without a slope.

(2) Valid for: Kovalex® floor board Standard Hollow Chamber; Kovalex® floor board Standard Full Profile; Kovalex® floor board Exclusive; Kovalex® floor board Solid with texture; Kovalex® floor board 20 mm.

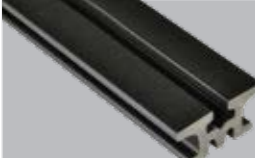







(3) The axial dimension is measured in each case from the centre of two neighbouring substructures.

(4) Please maintain an expansion joint of 0.7 cm when making mitre cuts to the trims.

(5) For pool surrounds, please note that the aluminium accessories react with chlorine (oxidation)











(6) The trim profiles are mounted using the aluminium attachment profile. Direct screwing or gluing to the floor boards is not permitted! Ensure that the trim and transition profiles are fully locked into the attachment profile. If necessary, use a hammer and a wooden base.



	<ul style="list-style-type: none"> <li>› 62 x 30 x 2.500 mm (W/H/L)</li> <li>› Required for 1 m<sup>2</sup>: approx. 2.5 RM (substructure spacing: 45 cm)</li> <li>› Required for 1 m<sup>2</sup>: approx. 3.5 RM (substructure spacing: 30 cm)</li> <li>› Item No.: 62152</li> </ul>
	<ul style="list-style-type: none"> <li>› 62 x 12 x 2.500 mm (W/H/L)</li> <li>› Required for 1 m<sup>2</sup>: approx. 2.5 RM (substructure spacing: 45 cm)</li> <li>› Required for 1 m<sup>2</sup>: approx. 3.5 RM (substructure spacing: 30 cm)</li> <li>› Item No.: 71132</li> </ul>
	<ul style="list-style-type: none"> <li>› 64 x 40 x 3.000 mm (W/H/L)</li> <li>› Required for 1 m<sup>2</sup>: approx. 2.5 RM (substructure spacing: 45 cm)</li> <li>› Required for 1 m<sup>2</sup>: approx. 3.5 RM (substructure spacing: 30 cm)</li> <li>› Item No.: 75188</li> </ul>
	<p><b>Connector for aluminium professional substructure 64 x 40 x 3,000 mm</b></p> <ul style="list-style-type: none"> <li>(4 pcs./bag with screws)</li> <li>› 60 x 29 x 196 mm (W/H/L)</li> <li>› Item No.: 75189</li> </ul>
	<ul style="list-style-type: none"> <li>› 60 x 30 x 2500 mm (W/H/L)</li> <li>› Item No.: 78832</li> </ul>
	<p><b>Plastic frame connector for aluminium substructure 62 x 12 x 2,500 mm</b></p> <ul style="list-style-type: none"> <li>(4 pcs./bag without screws)</li> <li>› 120 x 91 mm (W/L), thickness: 9 mm</li> <li>› Item No.: 76556</li> </ul>
	<p><b>Plastic mounting clip</b></p> <ul style="list-style-type: none"> <li>Board width 145 mm</li> <li>› Required for 1 m<sup>2</sup>: approx. 18 pieces (substructure spacing: 45 cm)</li> <li>› Required for 1 m<sup>2</sup>: approx. 25 pieces (substructure spacing: 30 cm)</li> <li>Board width 190 mm</li> <li>› Required for 1 m<sup>2</sup>: approx. 20 pieces (substructure spacing: 30 cm)</li> <li>› Colours:</li> <li>Brown Item No.: 44346</li> <li>Grey Item No.: 44345</li> <li>Black Item No.: 65458</li> </ul>
	<p><b>Metal mounting clip (stainless steel)</b></p> <ul style="list-style-type: none"> <li>Board width 145 mm</li> <li>› Required for 1 m<sup>2</sup>: approx. 18 pieces (substructure spacing: 45 cm)</li> <li>› Required for 1 m<sup>2</sup>: approx. 25 pieces (substructure spacing: 30 cm)</li> <li>Board width 190 mm</li> <li>› Required for 1 m<sup>2</sup>: approx. 20 pieces (substructure spacing: 30 cm)</li> <li>› Colours:</li> <li>Silver Item No.: 60259</li> <li>Anthracite Item No.: 72428</li> </ul>

	<p><b>Start/end bracket (stainless steel)</b></p> <ul style="list-style-type: none"> <li>› Colours:</li> <li>Silver Item No.: 71250</li> <li>› Without screws</li> </ul>
	<p><b>Kovalex® wall trim</b></p> <ul style="list-style-type: none"> <li>› 40 x 40 x 2.500 mm (W/H/L)</li> <li>› Colours:</li> <li>Grey Item No.: 62131</li> <li>Brown Item No.: 62130</li> <li>Chocolate brown Item No.: 65300</li> <li>Grey-brown Item No.: 65302</li> <li>Stone grey Item No.: 76547</li> </ul>
	<p><b>Aluminium wall trim incl. aluminium attachment profile</b></p> <ul style="list-style-type: none"> <li>› 40x60x2.500 mm (W/H/L)</li> <li>› Colours:</li> <li>Silver Item No.: 61696</li> <li>Anthracite Item No.: 76488</li> </ul>
	<p><b>Kovalex® side trim incl. aluminium attachment profile</b></p> <ul style="list-style-type: none"> <li>› 47 x 62 x 2.500 mm (W/H/L)</li> <li>› Only for decking boards with a height of 26 mm</li> <li>› Suitable for installation work with the Kovalex® substructure and professional substructure</li> <li>› Colours:</li> <li>Grey Item No.: 62132</li> <li>Brown Item No.: 62133</li> <li>Chocolate brown Item No.: 65293</li> <li>Grey-brown Item No.: 65296</li> <li>Stone grey Item No.: 76549</li> </ul>
	<p><b>Aluminium side trim incl. aluminium attachment profile</b></p> <ul style="list-style-type: none"> <li>› 45 x 59 x 2.500 mm (W/H/L)</li> <li>› Suitable for installation work with the Kovalex® substructure and professional substructure</li> <li>› Colours:</li> <li>Silver Item No.: 71137</li> <li>Anthracite Item No.: 76490</li> </ul>
	<p><b>Aluminium side trim 41 incl. aluminium attachment profile</b></p> <ul style="list-style-type: none"> <li>› 45 x 41 x 2.500 mm (W/H/L)</li> <li>› Suitable for aluminium substructure</li> <li>› Colours:</li> <li>Silver Item No.: 71668</li> <li>Anthracite Item No.: 76491</li> </ul>
	<p><b>Aluminium transition profile incl. aluminium attachment profile</b></p> <ul style="list-style-type: none"> <li>› 60 x 23 x 2.500 mm (W/H/L)</li> <li>› Colours:</li> <li>Silver Item No.: 67160</li> <li>Anthracite Item No.: 76489</li> </ul>
	<p><b>Aluminium edging profile 20 mm</b></p> <ul style="list-style-type: none"> <li>› 27 (42) x 25 x 2.500 mm (W/H/L)</li> <li>› For decking boards and aluminium drainage/ventilation profiles with 20 mm height</li> <li>› Colours:</li> <li>Silver Item No.: 75879</li> <li>Anthracite Item No.: 76487</li> </ul>
	<p><b>Aluminium edging profile 26 mm</b></p> <ul style="list-style-type: none"> <li>› 27 (42) x 31 x 2.500 mm (W/H/L)</li> <li>› For decking boards and aluminium drainage/ventilation profiles with 26 mm height</li> <li>› Colours:</li> <li>Silver Item No.: 57675</li> <li>Anthracite Item No.: 76492</li> </ul>

	<p><b>Aluminium adapter for deck pedestals</b></p> <ul style="list-style-type: none"> <li>To fix the Kovalex substructure to deck pedestals</li> <li>› 68 x 16 x 150 mm (W/H/L)</li> <li>› Item No.: 77688</li> </ul>
	<p><b>Aluminium drainage and ventilation profile for board height 26 mm</b></p> <ul style="list-style-type: none"> <li>› 150 x 26 x 1,000 mm (W/H/L)</li> <li>› Colour:</li> <li>Silver Item No.: 78073</li> </ul>
	<p><b>Aluminium drainage and ventilation profile for board height 20 mm</b></p> <ul style="list-style-type: none"> <li>› 150 x 20 x 1,000 mm (W/H/L)</li> <li>› Colour:</li> <li>Silver Item No.: 78074</li> </ul>
	<p><b>LED light strip</b></p> <ul style="list-style-type: none"> <li>Set content:</li> <li>› Light strip: 10 m</li> <li>› Transformer (IP67)</li> <li>› 4 power feeds</li> <li>› 6 end caps</li> <li>› 1 extension connector</li> <li>› Item No.: 75265</li> </ul>
	<p><b>Aluminium LED profile</b></p> <ul style="list-style-type: none"> <li>To hold the LED light strip</li> <li>› 20 x 32 x 2,500 mm (W/H/L)</li> <li>› Item No.: 74945</li> </ul>
	<p><b>Foam expansion profile</b></p> <ul style="list-style-type: none"> <li>› Length: 2 x 2,500 mm</li> <li>› Diameter: 15 mm</li> <li>› Item No.: 42674</li> </ul>
	<p><b>Wood and structural preservation base</b></p> <ul style="list-style-type: none"> <li>Roll goods</li> <li>› 77 x 8 x 2,500 mm (W/H/L)</li> <li>› Item No.: 67134</li> </ul>
	<p><b>Wood and structural preservation base, 60x</b></p> <ul style="list-style-type: none"> <li>› 60 x 3 x 90 mm (W/H/L)</li> <li>› Item No.: 77468</li> </ul>
	<p><b>Wood and structural preservation base, 12x</b></p> <ul style="list-style-type: none"> <li>› 90 x 8 x 90 mm (W/H/L)</li> <li>› Item No.: 64173</li> </ul>
	<p><b>Wood and structural preservation base, 48x</b></p> <ul style="list-style-type: none"> <li>› 90 x 8 x 60 mm (W/H/L)</li> <li>› Item No.: 77466</li> </ul>
	<p><b>Wood and structural preservation base, 20x</b></p> <ul style="list-style-type: none"> <li>› 60 x 20 x 100 mm (W/H/L)</li> <li>› Item No.: 77467</li> </ul>

	<p><b>Wood and structural preservation base, foil-laminated, 30x</b></p> <ul style="list-style-type: none"> <li>› 5 x 200 x 200 mm (W/H/L)</li> <li>› Item No.: 78673</li> </ul>
	<p><b>Screw set 1</b></p> <ul style="list-style-type: none"> <li>To fix the aluminium attachment profile to WPC substructures</li> <li>› incl. drill and bit</li> <li>› 4 x 25 mm/100 pcs.</li> <li>› Item No.: 76084</li> </ul>
	<p><b>Screw set 2</b></p> <ul style="list-style-type: none"> <li>To fix the aluminium attachment profile or frame connector to aluminium substructures</li> <li>› incl. drill and bit</li> <li>› 3.9 x 13 mm/100 pcs.</li> <li>› Item No.: 76083</li> </ul>
	<p><b>Screw set 3</b></p> <ul style="list-style-type: none"> <li>To fix the start/end brackets to aluminium substructures</li> <li>› incl. drill and bit</li> <li>› 3.9 x 13 mm/20 pcs.</li> <li>› 3.9 x 22 mm/20 pcs.</li> <li>› Item No.: 76082</li> </ul>
	<p><b>Fastening screws</b></p> <ul style="list-style-type: none"> <li>For screw mounting of deck pedestals without dowels</li> <li>› incl. bit</li> <li>› 7.5 x 42 mm/50 pcs.</li> <li>› Item No.: 78638</li> </ul>
	<p><b>Fastening screws</b></p> <ul style="list-style-type: none"> <li>For screw mounting of WPC substructures without dowels</li> <li>› incl. bit</li> <li>› 7.5 x 52 mm/50 pcs.</li> <li>› Item No.: 78639</li> </ul>
	<p><b>EPDM universal patio tape</b></p> <ul style="list-style-type: none"> <li>For screw mounting of WPC substructures without dowels</li> <li>› incl. bit</li> <li>› 7.5 x 52 mm/50 pcs.</li> <li>› Item No.: 78639</li> </ul>
	<p><b>Deck pedestal 0</b></p> <ul style="list-style-type: none"> <li>› Construction height 6 mm</li> <li>› Not height-adjustable</li> <li>› Item No.: 75924</li> </ul>
	<p><b>Deck pedestal 1</b></p> <ul style="list-style-type: none"> <li>› Height-adjustable 35 to 70 mm</li> <li>› Item No.: 75186</li> </ul>
	<p><b>Deck pedestal 2</b></p> <ul style="list-style-type: none"> <li>› Height-adjustable 65 to 155 mm</li> <li>› Item No.: 75187</li> </ul>




**GENERAL INFORMATION**

Manufacturer		Kosche Holzwerkstoffe GmbH & Co. KG			
Product name	Kovalex® Standard	Kovalex® Exclusiv	Kovalex® Standard Full profile	Kovalex® Solid with texture	Kovalex® XL
Profile cross-section					
Registration number (quality label)	Z 04	Z 25	-	-	-
Plastic used	PE	PE	PE	PE	PE
Profile width	145 mm	145 mm	145 mm	145 mm	190 mm
Profile thickness	26 mm	26 mm	26 mm	20 mm	20 mm
Density	1,25 g/cm <sup>3</sup>	1,25 g/cm <sup>3</sup>	1,25 g/cm <sup>3</sup>	1,25 g/cm <sup>3</sup>	1,25 g/cm <sup>3</sup>
Weight per running metre	2,5 kg	2,5 kg	3,8 kg	3,5 kg	3,2 kg
Substructure spacing (axial dimension)	45 cm	45 cm	45 cm	30 cm	30 cm
Coefficient of linear thermal expansion	max. 4 x 10 <sup>-5</sup> K <sup>-1</sup>	max. 4 x 10 <sup>-5</sup> K <sup>-1</sup>	max. 4 x 10 <sup>-5</sup> K <sup>-1</sup>	max. 4 x 10 <sup>-5</sup> K <sup>-1</sup>	max. 4 x 10 <sup>-5</sup> K <sup>-1</sup>

**MECHANICAL PROPERTIES**

Breaking load (point loading)**	at least 3200 N	at least 3200 N	at least 4500 N	at least 4500 N	at least 3200 N
Breaking load failure at alternating strain	max. 20 %	max. 20 %	max. 20 %	max. 20 %	max. 20 %
Warpage (point loading: 50 kg)	max. 2,0 mm	max. 2,0 mm	max. 2,0 mm	max. 2,0 mm	max. 2,0 mm
Behaviour in ball drop test (surface cracks)	max. 10 mm	max. 10 mm	no cracks	no cracks	max. 10 mm
Slip resistance (DIN 51130)	R 10	R 10	R 10	R 10	R 10

**MOISTURE BEHAVIOUR (SWELLING FOLLOWING PLACEMENT IN BOILING WATER (5H AT 100 °C))**

Weight gain	max. 8,0 %	max. 8,0 %	max. 5,0 %	max. 4,0 %	max. 8,0 %
Dimensional change – length	max. 0,5 %	max. 0,5 %	max. 0,5 %	max. 0,5 %	max. 0,5 %
Dimensional change – width	max. 0,8 %	max. 0,8 %	max. 0,6 %	max. 0,6 %	max. 0,8 %
Dimensional change – thickness	max. 4,5 %	max. 4,5 %	max. 3,0 %	max. 3,0 %	

**DIMENSIONAL TOLERANCES**

Length (up to 6000 mm)	-10 / +20 mm	-10 / +20 mm	-10 / +20 mm	-10 / +20 mm	-10 / +20 mm
Width	-3 / +3 mm	-3 / +3 mm	-3 / +3 mm	-3 / +3 mm	-3 / +3 mm
Thickness	-2 / +2,5 mm	-2 / +2,5 mm	-2 / +2,5 mm	-2 / +2,5 mm	-2 / +2,5 mm
Weight	-1 % / +1 %	-1 % / +1 %	-1 % / +1 %	-1 % / +1 %	-1 % / +1 %
Non-angularity per metre	up to 2,5 mm	up to 2,5 mm	up to 2,5 mm	up to 2,5 mm	up to 2,5 mm

**Disposal**

Kovalex® floor boards can be classified in the waste wood category A II (AltholzV0).  
 For private households, disposal can thus take place with normal bulky waste or at recycling centres.  
 Only minimum quantities (scrap pieces) should be disposed of with domestic waste.

Last updated: 02/2016; Values apply ex works for patios open at 2 sides (not at ground level) without connection to permanent components; individual values can deviate slightly

\*\* This value applies to individual boards with a substructure spacing as stated in the current installation instructions.