

1. Preparation and storage

Store **Kraitec® step** slabs in dry areas, do not expose them to UV-light and extreme temperatures to prevent them from darkening. This ensures a homogenous appearance of the installed surface.

To minimize dimensional variations which can be caused by storage in stacks, spread the slabs out on the ground for minimum 2 hours before the final installation to permit them to regain their original dimensions. It is recommended to install all slabs in a single session to insure installation under similar conditions.

Auxiliary materials, e.g. sealants and adhesive tapes, are to be stored and used as specified by the manufacturer.



Required tools and materials

Cutting tool(s): heavy-duty knife, low-speed sabre saw (with blade for wood), T-square



Markers: felt-tip marker, chalk, mason lacing cord, chalk line roller or similar markers



Glueing: Cartridge gun for sealan



Possible accessories: angle profile (as edge bordering) Drainage mat



2. Subsurface design

a) Terrace, balcony, flat roof

The subsurface must show a slope of at least 2% or must be available in accordance with the respective country regulations or have adequate take-off drains.

Kraitec® step slabs are water permeable with drainage channels on the bottom side. Unbalanced changes in dimensions are possible in case of unusual moisture conditions and stagnant water on the subsurface. This situation must be absolutely avoided. Dirt, oil and other contaminations must be removed from the surface (broom clean). A checkup of the functionality of the roof membrane is recommended.

b) Edge surfacing around swimming pools

Proper construction of the subsurface before installation is extremely important. Be sure that the subsurface shows a slope of approx. 2 % and has adequate take-off drains. Any depressions greater than 3 mm in depth which can collect water must be levelled off by suitable materials. Paved surfaces (such as concrete or asphalt) must be level to avoid water collection and must be free of cracks, holes and other foreign materials.

3. Installation

a) Terrace, balcony, flat roof

Kraitec® step can be directly installed on concrete or on similar solid surfaces as well as on bituminous membranes.

In case of material incompatibility with the sealing sheet, a suitable separating layer (e. g. geotextile non-woven fabric, PE-film, etc.) must be laid between **Kraitec® Step** and the subsurface. The required separation layer and material compatibility must be specified or approved by the roofing membrane manufacturer

For problematic material combinations we recommend also **KRAITEC® step plus** with polyester geotextile laminate (300 g/m²) on the bottom side.

Installation conditions

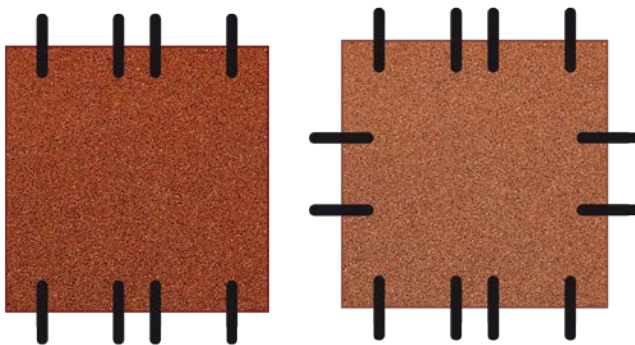
Analog to our storing conditions extreme temperature conditions at the site should be avoided. The ambient temperature at the site should be 5° C minimum, in order to avoid dimensional changes during installation.

KRAITEC® step for walkways on flat roofs

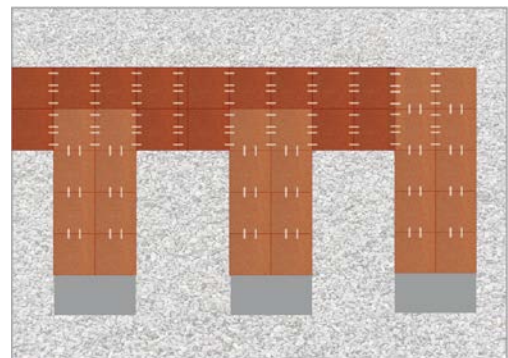
For walkways of 1.00 m width and larger we recommend slabs with pre-drilled holes on 2 or 4 sides* as shown in the illustrations below. The illustrations visualize the correct installation and the quantity of slabs needed for both types of slabs.

Please ensure the correct alignment of the holes during installation.

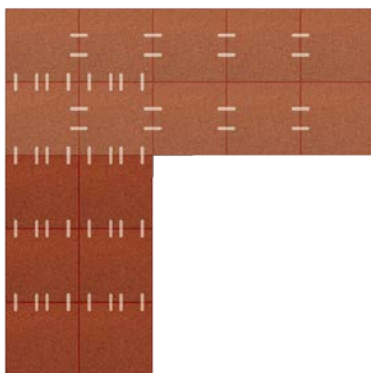
The different colour representation is provided for illustration purposes only.



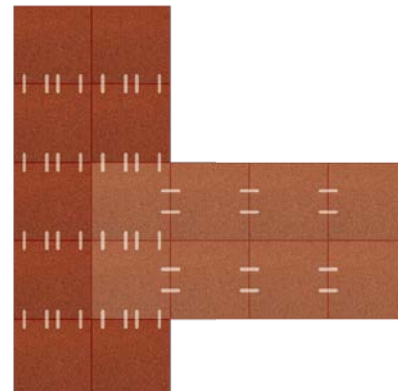
graphic 1: Positions of the connector pins for slabs pre-drilled holes on 2 and 4 sides.



graphic 2: Required quantity for both configurations



graphic 3: Corner-joint for walkway 1 m width



graphic 4: T-joint for walkway 1 m width

For branching off walkways slabs with pre-drilled holes on 4 sides are required.

* pre-drilled holes on 4 sides not for KRAITEC step color/neon

Please note: Loose laid slabs must be secured against lifting. The necessary fastening depends on the wind load zone, building and ground category. To ensure the stability of the slabs, KRAIBURG Relastec recommends suitable adhesives (depending on the subsurface). Special care must be taken for large foils due to significantly higher wind loads in the middle of the track. Therefore, additional measures might be required. Necessary actions should be clarified with the manufacturer, the structural engineer or the inspection engineer before installation.

Please note: For roofs the standards of DIN EN 1991 part 1-4:2010-12 „Eurocode 1: Influences on supported structures – part 1-4: General influences – wind loads” have to be considered.

b) Edge surfacing around swimming pools

Installation of **KRAITEC® step** is done in a masonry-style configuration which provides stability of the installed slabs. If no edge trim enclosure is present around the area to be installed, install edging. An angle profile as edge bordering is recommended (see point 1/Storage and Preparation).

Installation conditions

Analog to our storing conditions extreme temperature conditions at the site should be avoided. The ambient temperature at the site should be 5° C minimum, in order to avoid dimensional changes during installation.

4. Installation instructions

Install the first row of **Kraitec® step** on the longest side of the area where the slabs can be loose laid or glued if necessary. This row must be rectangular. Take care that the integrated connector pins point exactly in direction of the next row. Start the next row with a half slab and proceed as described above. Start the third row with a slab of normal size and the fourth row with a half slab and continue like this. The masonry-style configuration avoids lifting and shifting (see graphic 1).

Please note: For roofs the standards of DIN EN 1991 part 1-4:2010-12 „Eurocode 1: Influences on supported structures – part 1-4: General influences – wind loads” have to be considered.



Installation in a T- joint configuration

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If no edge trim enclosure is present around the area or only in part, the slabs on the outer perimeter must be glued with a suitable adhesive cement to secure them against shifting. Use only adhesive cements which are supplied or recommended by the roof membrane manufacturer. To ensure a homogenous appearance and the perpendicularity of the installed area, it is recommended to use a chalk line.

Glueing instructions

Kraitec® step slabs can be permanently glued to the subsurface with a suitable adhesive cement. Material compatibility and suitability of the adhesive cement have to be recommended or authorized for use by the roofing membrane manufacturer.

The installation of the adhesive cement has to be done in accordance with adhesive manufacturers' recommendations.

Cut to size

KRAITEC® step slabs are easy to cut using a low-speed sabre saw (blade for wood/medium-sized teeth) or a carpet knife in conjunction with a steel straightedge.

Special care is required with high-speed saws. Frictional heat on the cut surface might cause burns. Make sure to support the slab with sufficient elevation on both sides of the cut.



Cut to size with a carpet knife

5. Dimensional tolerance

The dimensional tolerance of **Kraitec® step** slabs as manufactured is approx. $\pm 1.5\%$ in length and width and ± 2 mm in thickness.

Dimensional variations can be caused by storage in stacks (elastic compression due to the stack weight). Therefore, **Kraitec® step** slabs should to be taken from different stacks of the pallet.

6. Colour variations

Kraitec® step slabs may vary slightly in colour due to the recycled raw material used in manufacturing, storing conditions, external influences and application.

Colour variations due to weather conditions will disappear with time.

To avoid colour variations of the area to be installed, it is recommended to take slabs from the same bulk consignment.

Please note: To avoid colour variations due to differences in sunlight exposure, do not remove protective film until immediately prior to installation.

7. Recommended cleaning procedures

Regularly cleaning of your installed **Kraitec® step** surface will promote a long useful life as well as attractive appearance.

Kraitec® step surfaces can be kept clean by sweeping with a soft-bristled broom or a heavy-duty vacuum cleaner. To remove foreign material adhering to the surface such as pollen or bird droppings dirt, a high-pressure spray cleaner can also be used to clean **KRAITEC® step**. Please do not use a rotating nozzle. Always maintain a minimum separation of 30 cm between the spray nozzle and the surface cleaned which in turn depends on the level of performance of the compressor.

A walkway covered with green slippery algae can be cleaned with algae-remover. Ensure appropriate handling and installation of the remover in accordance with the manufacturer's recommendations. In case of doubt, please contact the manufacturer.

Kraitec® step slabs can also be cleaned with a scrubbing brush or scouring pad, using an ordinary pH-adjusted household cleaner.



Cleaning

DISCLAIMER:

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