

## Installation Instruction

### Storage of EUROFLEX® Products and adhesive cements

**EUROFLEX® products should normally be stored in dry areas at constant temperature above 10°C. If stored below 10°C, store the slabs at the installation site temperature (> 10°C) for at least 2 hours before installation.**

**Important note: Adhesive cements must be stored at all times in dry locations above 0°C.**

**To avoid colour variations due to differences in sunlight exposure, leave the UV protection film on the products as supplied until just prior to installation.**

### Required Tools

**Cut** Cutting knife, heavy duty, with replacement blades, hand saw, sabre saw or band saw (with blades for wood), steel straight edge (e.g. carpenters square 600 mm)



**Mark** Chalk line with refill chalk, felt-tip markers (water –soluble) or chalk, tape measure or meter stick



**Gluing** Application gun for dispensing adhesive cement, adhesive cement cartridges, work glove, kneepads



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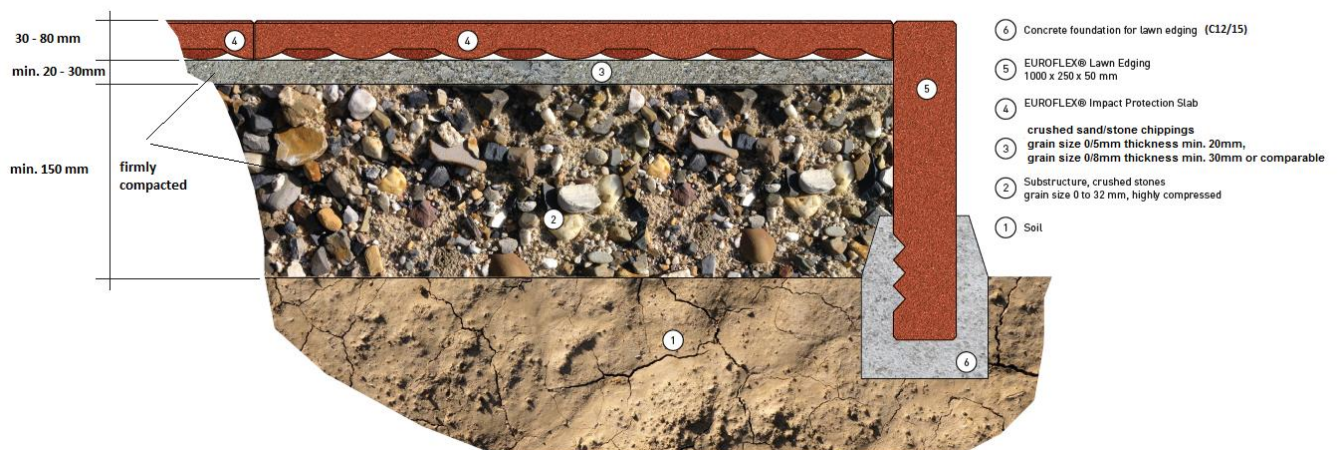
page 1 of 16

### Attention:

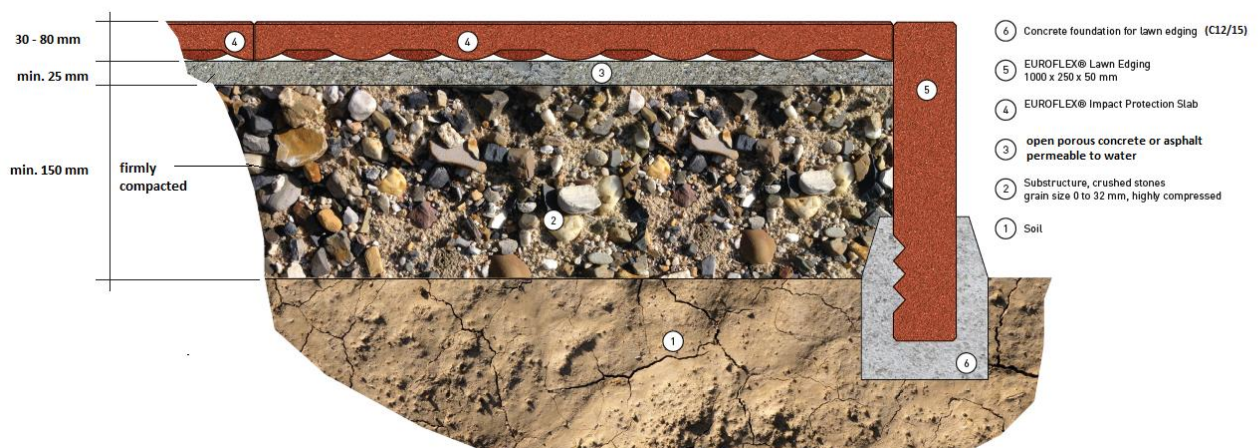
The subbase for indoor installation should be even, flat and dry.  
By installation on an already existing subbase should be checked the compatibility.  
If the subbase material based on PVC migration of plasticizer are possible and unpleasant exhalations.

## Preparation Subbase

### Unbounded Subgrade



### Bounded Subgrade



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**Note: The basement is taken off till attended depth plus thickness of the slabs. Through acceptance inspection for the subgrade is recommended for installation the slabs.**

**For not drainable concrete or asphalt is a down grade of approx. 2% and an adequate take-off drains needful.**

### Subsurface Design / Acceptance Criteria

EUROFLEX® slabs have excellent drainage properties.

Any depressions greater than 3 mm in depth which can collect water must be levelled off by suitable materials.

Like other elastomeric materials, EUROFLEX® products absorb heat when exposed to direct sunlight. Their surface temperatures can be higher than asphalt surfaces exposed to the same conditions. EUROFLEX® products should be installed and stored in shady areas if possible to avoid overheating.

### Preparation of the Subsurface

Proper construction and acceptance inspection of this subsurface before installation is extremely important.

The following instructions must be followed exactly by the contractor carrying out the subsurface preparation and by the EUROFLEX® slab installer in subsequent acceptance inspection. Remove the existing soil to a depth of min 300 mm plus the thickness of the slabs that will be installed.

If no edge trim enclosed is present around the area to be covered, install EUROFLEX® Lawn Edging for safer playing conditions.

EUROFLEX® slabs are elastic products with open pores. Based on optional effects of the weather, as much rain, it is possible that the dimensions change.

Should questions arise regarding soil conditions and characteristics or expected soil behaviour, consult a soil mechanics engineer.

Compact each layer with a vibration compactor to 98% standard Proctor density.

Following application of the final layer, again check levelness, correct uneven spots with suitable material. Paved subsurface such as concrete or asphalt must be absolute even level without any vertical height. The surfaces must be free of cracks, clean and free of oil or other foreign materials.

Regardless of the type of subsurface used; it must not deviate from level by more than 5 mm under a 3 m lathe.



Crushed stones bed stable compacted



Levelling crushed sand/stone chippings



Stable compacting

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### **Perpendicularity Check, Minimization of Dimensional Variations**

Start installation by laying a chalk line parallel to and a full slab width away from one side of the surface to be covered. Lay a second chalk line exactly perpendicular (at an angle of 90°) to the first. Check that the lines are perpendicular by the 3/4/5 rule: Starting at the intersection point of the lines, measure off exactly 3 m down the first line and mark this point, then measure off exactly 4 m down the second line and mark this point. Measure the distance between the two points marked. If the lines are perpendicular, the distance between the points will exactly be 5 m. The dimensional tolerance of EUROFLEX® slabs as manufactured is approx. +/- 0,8% in length and width, +/- 2 mm thickness. Dimensional variations can be caused by storage in stacks (elastic compression of the slabs due to the stack weight) and changes in thermal expansion and ambient temperature.

### **The following procedures are recommended to minimize dimensional variations:**

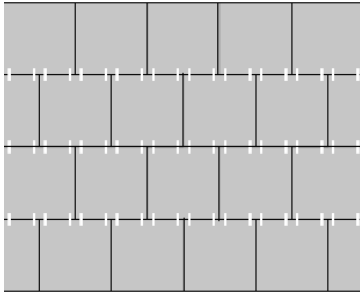
- **Be certain that all slabs to be laid have the same temperature over the entire term of installation.**
- **Spread the slabs out on the ground for 2 hours before final installation to permit them to regain their original dimensions.**
- **Install all slabs in a single session to ensure installation under similar conditions.**

**For ideal installation conditions, the ambient temperature at the site should have been over 4°C for at least 24 hours prior to installation. If the ambient temperature at the site is below 4°C, store the slabs to be installed in a dry area at a temperature of at least 10°C for at least 72 hours prior to installation. Do not install EUROFLEX® slabs if ambient temperatures below 4°C are expected at the installation site for an extended period of time.**

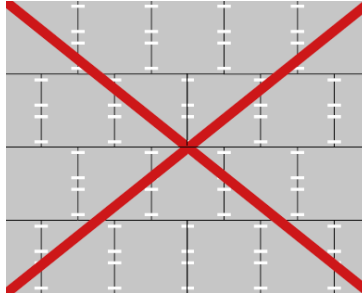
### **Installation of EUROFLEX® Slabs**

Install the first row of EUROFLEX® slabs by placing them precisely along the chalk line. Start the second row (and every second row thereafter) with a half slab. Connect the slabs of the second row to the first by the integrated connector pins. The masonry-style configuration (Figure 1) provides stability of the installed slabs. Cut the last slab in each row to the required size using a heavy-duty carpet knife or a sabre saw.

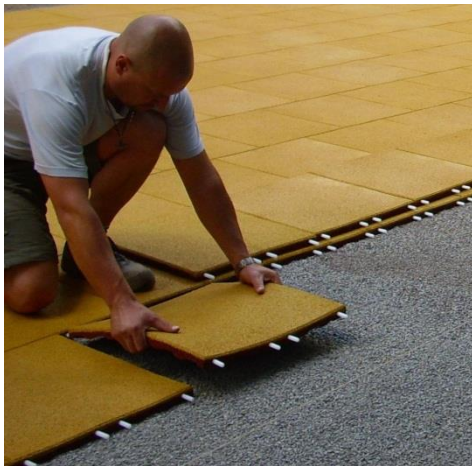
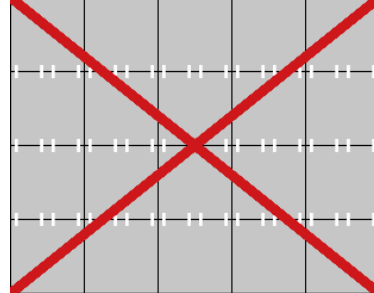
**Correct: „T“-joints**



**Incorrect: „T“-joints  
Installed in line**



**Incorrect: cross joints**



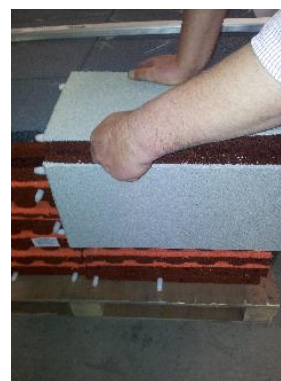
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### Cutting slabs with a stable cutter knife

- Measure and mark cutting edge



- Cutting with cutter knife



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Or with a pad saw, saw blade for wood

Mark the relief



### Installation nonrectangular areas.

Start the installation at the longest even border in rightangle stile at a chalk line.



After that close the area to the bordering.

The following installation must be done in T configuration.

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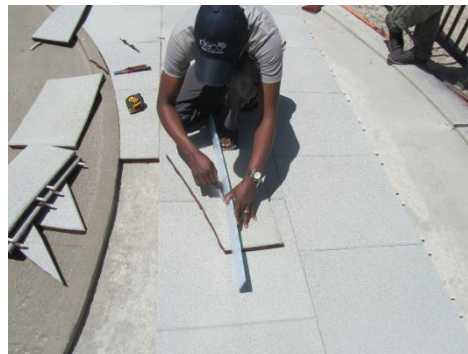
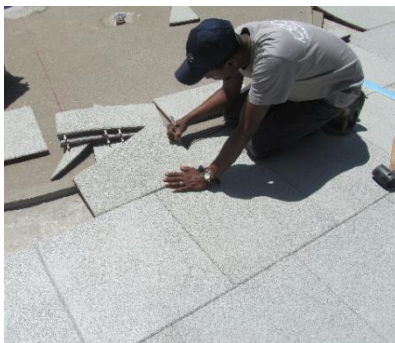


The slabs must be form closed without gabs installed.

For circular areas it is recommended to build a model by plastic or paper.

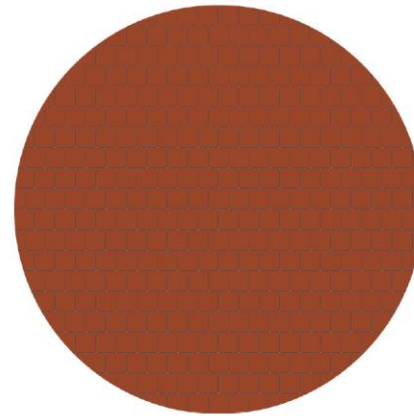
**mark the circle**

**transfer on model**



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page 9 of 16



To calculate areas please use the playground configuration tool on our website:

<https://www.kraiburg-relastec.com/euroflex/en/playground-configurator/>

By installation EUROFLEX® slabs on granular subsurface, use a sheet metal, plastic or cardboard underlay as an installation aid to keep particles out of the joints between the slabs.



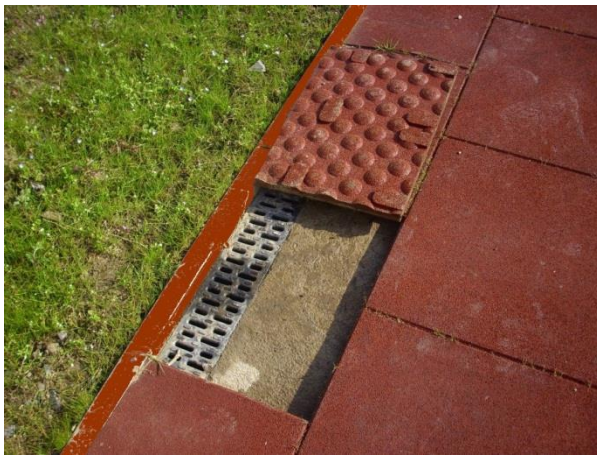
Use the second chalk line to check the perpendicularity of installation.  
Any slabs which will border on the edge limitation enclosing the surface must be cut to size very accurately to ensure a close fit.

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page 10 of 16

Glue only slabs of the first and the last row and all slabs on the outer perimeter to each other and to the edge limitation enclosing the surface to secure them against uplifting or unauthorized removal.

Read the use instructions for the adhesive cement carefully prior the installation. Use only adhesive cements which are supplied or recommended by KRAIBURG Relastec GmbH & Co. KG. Suitable disposable gloves should be worn during glue application to avoid skin irritation.



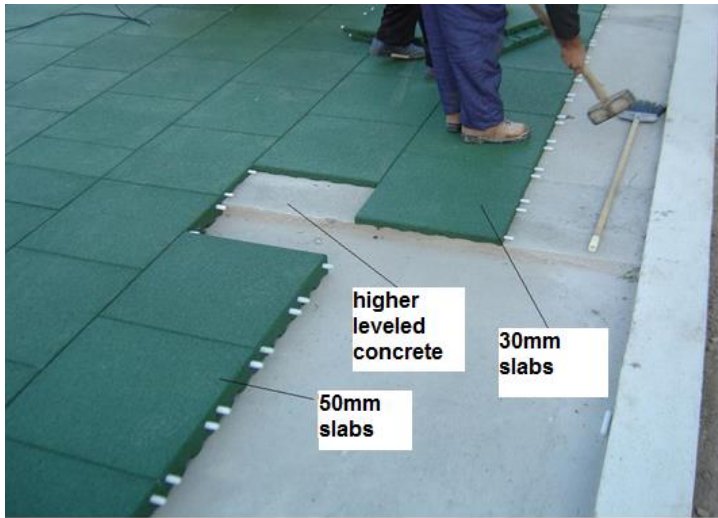
**Attention:** At installation slabs on undrainable bonded subgrade, concrete or asphalt, is a down grade approx. 2% and a free drainage always necessary. It must be sure that the slabs not any wetness absorb at the subgrade. The result would be that the slabs expanded and displace.

### Combination different thicknesses of slabs in one area

#### Bonded subbase

All slabs in the thickness range of 40mm until 80mm are combinable one below the other because the connector pins are in the same dimension measured von the top of the slabs. The height compensation must be done with the underground.

The combination of the 30mm slabs with all other slabs must be done as bordering installation based on the smaller connector pins.



**Unbounded subbase**

The same objectives as for unbounded subbases are valid for the combinability of slabs. The height compensation must be done with the underground. The underground must be sunken in according the thickness of the slabs.



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**Attention!**

To get the right H Paver layout please follow the instruction:

- 1. Row



- 2. Row and every second row following



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page 13 of 16

- 3. Row



- 4. Row



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### Maintenance of the Installed EUROFLEX® Surface

Regular cleaning of your installed EUROFLEX® surface will promote a long useful life as well as attractive appearance. EUROFLEX® surfaces can be kept clean by sweeping with a soft-bristled broom or vacuuming with an industrial vacuum cleaner. High pressure water spraying can also be used to clean EUROFLEX® surfaces and provides more efficient dirt removal from the surface pores of the slabs.

EUROFLEX® slabs are not adversely affected by cleaning with most common household or industrial cleaners when diluted in accordance with manufacturer's recommendations. Light surface stains can be removed with such cleaners using a scrubber or a cleaning rag.

Depending on the frequency of use, EUROFLEX® surfaces will occasionally need deep cleaning procedures to remove dirt, stains, mould and mildew, etc. These procedures utilize a steam cleaner or power washing with or without the use of cleaning agents. Cleaning the gaps between the slabs is very important.

Please note: Out EUROFLEX® warranty is not applicable if the product has not been maintained in accordance to out maintenance instructions above.

### Gluing instruction under using EUROFLEX® Edge and Corner profile on bounded subgrade



It is recommended to crew the edge and corner profile extra to the subbase and glue them holohedral to the subbase.

The profile must be glued to the first line of slabs.



**Required quantity of glue:** 1 cartridge (310 ml) for every 3 – 4 m of joint length glued.

**Type of glue:** elastic 1-component polyurethane adhesive cement e.g. Ottocoll P 83 and Ottocoll m 500 (Otto Chemie, Fridolfing/Germany, Tel. +49 (0)8684 – 908-0, Other purchasing sources: specialist retailers or your nearest KRAIBURG representative.

**Preparation:** The surfaces must be clean, dry and free of grease. Check adhesion to and compatibility with plastic and painted surfaces before installation.

**Gluing:** Apply adhesive cement from application pistol onto the substrate. The required layer thickness is dependent on the materials being joined. Within 10 minutes, put the upper material in place and apply contact pressure. Due to the pasty consistency of the cement, we recommend maintaining contact pressure until curing is complete. The required curing time is dependent on the layer thickness and the humidity of the ambient air.

Processing temperature: + 5°C until +40°C

Film after 20 min at 23°C

Curing time after 24 h at 23°C

**Primer for absorbent subgrade:** Designed to improve adhesion on minerals materials e.g. porous concrete is grounding recommended. e.g. OTTO primer 1225 for glue Ottocoll P 83 and M 500; for asphalt use OTTO Primer 1216 and Ottocoll P83

**Form of delivery:** Bottle 100 ml, 250 ml, 500 ml, 1000 ml

**Application:** Apply OTTO Primer smooth with a brush.