

# SHIELDTAC® Installation Recommendation

This instruction is valid for the following SHIELDTAC® - products:  
**ricotile** und **ricotile FR**.

## Suitable, solid surface



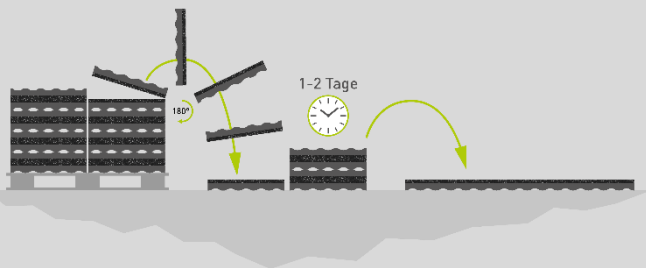
## 1. Substrate

The substrate must be tested and evaluated before installation in accordance with the national standard (DIN 18365). Suitable substrates are, for example, asphalt, concrete or screed. The substrate ready for covering must be pressure and tension resistant, even, permanently dry, load-bearing, clean and free of dirt and cracks that could impair the bonding. The substrate must comply with the limit values for evenness deviations in accordance with DIN 18202 (increased requirements = max. 3 mm difference over a distance of 1 meter). Slight unevenness must be repaired with a suitable leveling compound. Depending on the substrate, it may be advisable to prime the substrate with a suitable (barrier-) primer.

For wall or ceiling installation, walls or ceilings of solid construction are best suited. Alternatively, other wall or ceiling constructions may be used, provided they comply with the applicable regulations for shooting ranges and allow for a safe and secure installation of the SHIELDTAC® **ricotile** tiles. Both the existing substrate and the wall or ceiling must be level, dry, clean, and load-bearing.

## 2. Preparation Work

The substrate must be thoroughly swept and cleaned before starting installation. The same applies to fixing the tiles on the wall or ceiling. These must also be free of any pollution. Any unevenness must be corrected prior to installation and wooden slats must be fixed to the wall or ceiling. Before installation, remove the tiles from the pallet, lay them loosely on the floor and store them for 1–2 days in the area where they are to be installed for acclimation. The temperature for storage and installation of SHIELDTAC® **ricotile** tiles should be between 15 °C and 25 °C.



## Creating chalk lines and laying the tiles along this line



## Installation of the tiles along an edging



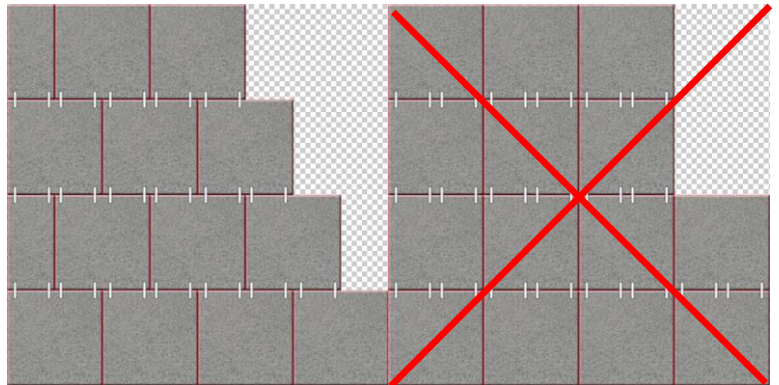
## 3. Installation on substrate

Place the first tile against the wall or edge and then start laying. Lay tile next to tile so that no joint is left between the tiles and the connector pins face forward. Start the second row with half a tile so that the tiles can be laid in a T-joint bond. Plug the tiles together using the supplied connector pins; a rubber mallet may be used to assist assembly if required.

For orientation, an auxiliary line or chalk line (snap line) may be drawn.

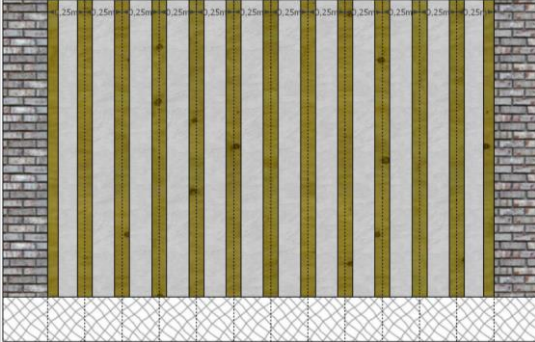
If required, a straight edge must be prepared in advance to allow clean alignment of the tiles against a wall or within the room. In the case of curves and edges, cut the tiles to the required shape and fit them flush at these points.

If a PU coating (e.g. **SHIELDTAC® ricosys**) is to be applied to the floor covering, the tiles must be bonded to the substrate beforehand. For this purpose, mix both components of the two-component PU adhesive at the start of installation and spread it evenly over the area where the tiles are to be placed using a suitable notched trowel. Additionally, the four corners on the underside of the tile may be provided with adhesive to improve adhesion of the tiles to the substrate.

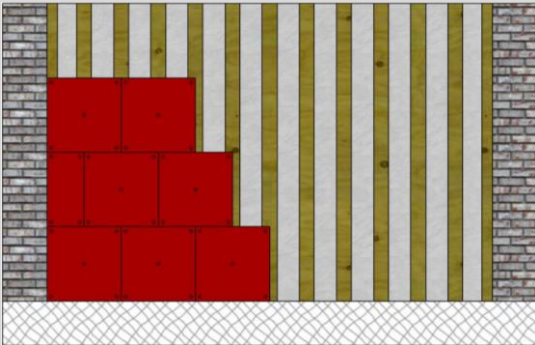


Correct installation in brick bond format; incorrect installation in grid formation with T „junctions with Cross junctions

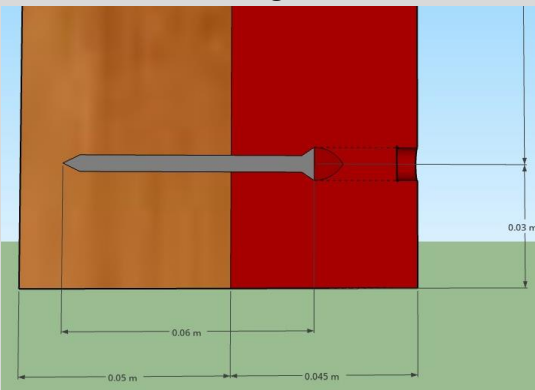
**Fixed wooden slats**



**Screwing of the tiles with 5 screws**



**Side view – screw fixing**



## 4. Installation on walls or ceilings

Before installing the **SHIELDTAC® ricotile** tiles on the wall or ceiling, the factory-installed connector pins must be removed in order to allow easy replacement of the tiles at a later stage.

Fasten wooden slats (approx. 10 cm wide) to the wall or ceiling using dowels and screws in such a way that they are able to carry the weight of the tile installation. The wooden slats must be installed at regular intervals of 25 cm. Once the wooden slats are fixed to the wall or ceiling, the tiles can be attached to the wooden slats. For this purpose, screws are inserted at a distance of approx. 3 cm from the tile corners in such a way that the screw is fixed into the wooden slat, the screw head disappears into the tile and the tile is pressed against the wooden slat. Each tile must be fixed with five screws, one in each corner and one centered in the middle of the tile. Tiles with a width of 1000 mm must be fixed using eight screws. After a tile has been fixed to the wooden slats, place the next tile and proceed with fixing in the same manner. Alternatively to screwing, the tiles may also be fixed using a suitable staple or tacker gun. In this case, it must be noted that replacing individual tiles requires increased effort. Start the second row with half a tile and then alternate each subsequent row, starting with a full tile and then with a half tile.

## 5. Important details

When using a primer or bonding agent, adhesive and PU self-leveling coating pay attention to, and follow the manufacturer's instructions and check the compatibility to **SPORTEC®** products. For applying of PU coating for the substrate installation pay attention and following manufacturer's instructions and regard local laws and standards.

### Required tools for the installation



Gloves    Measuring tape    Band saw



Chalk line    Jigsaw    Hand-held circular saw

### number code



### sticker



The tiles may only be glued to substrates that are ready for installation. Humidity levels should be measured (e.g. for CM measurement cement screed  $\leq 2.0\%$ ; calcium sulphate screed  $\leq 0.5\%$ ) in advance of installation to ensure compliance with adhesive requirements, and if necessary, the installation should be delayed.

The tiles may only be installed on leveled, dry and clean substrate.

When possible, the installation should be done in one day so that all tiles are installed under the same ambient conditions.

**SHIELDTAC®** tiles with a thickness of more **than 40mm** should no longer be cut with a cutting knife, as the material is way too thick to cut safely and easily into the desired shape. We recommend using a hand-held circular saw (at least 1400 watts, 5500 rpm, and 67 mm cutting depth) with coarse teeth to ensure precise and clean cuts. Alternatively a band saw or jigsaw (suitable blades = Bosch T345XF/T313AW in combination with a high stroke rate) can be used here, but please make sure that the tiles are securely fixed in place, as otherwise vibrations in the material can be transmitted to the blade during the cutting movement, which can lead to inaccurate cuts or bending of the blade.

**In case of claims caused of falsely delivered goods, defect goods, insufficient quantities or other possible faults make a claim immediately and stop the installation directly. A claim of delivered material is only possible with untreated material and with declaration of the order number or production batch reference number, printed on the side of tile.**

### DISCLAIMER:

These recommendations for applications and installation are based on our extensive experience and on current technological practice. Our liability and responsibility in the event of damages shall be limited to the extent defined in our General Terms and Conditions of Business, regardless of the above recommendations or of any statements made or advice given by our sales representatives or applications engineering staff.