

### 2-component, synthetic resin-bonded, water-permeable paving stone grout mortar

- can even be used in light rain, no covering required
- also for narrow joints
- suitable for road sweeping machines
- compressive strength:  $\geq 15 \text{ N/mm}^2$



### APPLICATIONS

- for grouting existing and new paving and slabbed surfaces
- suitable for use-category N2 according to ZTV Wegebau (extra technical requirements for road building)
- for traffic surfaces subject to light vehicles up to 3.5 t

### PROPERTIES

- permeable to water
- frost-resistant and water-resistant after hardening
- can withstand vehicle loads
- effective in preventing weed growth in the joints
- resistant to high pressure cleaners
- easy to clean
- high chemical resistance
- especially suitable for swimming pool and pool surrounds

### COLOURS

- sand, concrete grey, slate

### COMPOSITION

- Epoxy resin, epoxy hardener
- functional fillers
- pigments

## SUBSTRATE

<b>Properties/tests</b>	<ul style="list-style-type: none"> <li>■ The paving and its subbase must be constructed in such a way as to prevent any loosening of the joints under subsequent loading.</li> <li>■ The relevant regulations and instruction sheets for the construction of paving must be observed.</li> <li>■ The entire construction must be water permeable, so that penetrating water can drain away.</li> <li>■ Required minimum joint depth with small paving stones: 25 mm.</li> <li>■ Required minimum joint depth with large paving stones: 30 mm.</li> <li>■ Required minimum joint width: 3 mm</li> <li>■ For large format tiles we recommend at least 5 mm or 1 % of the longest tile side as the joint width.</li> <li>■ The sides of the paving units must be free of any impurities.</li> </ul>
<b>Pretreatment</b>	<ul style="list-style-type: none"> <li>■ The paving surface to be joined should be carefully wetted before starting work to prevent the epoxy resin binder from penetrating the pores in the stones.</li> <li>■ There must be no water standing in the joints.</li> <li>■ Pretreat with tubag FHI as required (see instructions).</li> </ul>

## PROCESSING

<b>Temperature</b>	<ul style="list-style-type: none"> <li>■ Do not use or allow to dry and harden in air, material or substrate temperatures of less than +5°C, in the case of expected night time frost or at temperatures of over +25°C, in direct sunlight, extremely heated substrates and/or in strong wind.</li> </ul>
<b>Mixing / Preparation / Processing</b>	<ul style="list-style-type: none"> <li>■ Mix both components for at least 3 minutes in a compulsory mixer or with a suitable mortar paddle.</li> <li>■ We recommend a twin mixing paddle.</li> <li>■ Unmixed mortar may not be processed.</li> <li>■ Then add approx. 2.2 l of clean water and mix again.</li> <li>■ The optimal mortar consistency is reached when slight foaming appears.</li> </ul>
<b>Processing</b>	<ul style="list-style-type: none"> <li>■ Grouting is done by slurring with a rubber squeegee.</li> <li>■ Spreading as a slurry grout can be supported by a light water spray.</li> <li>■ After approx. 10-15 minutes, the joints introduced are recompactd in a longitudinal and lateral direction with a medium-hard brush.</li> <li>■ The film of binding agent remaining on the stones is then sprayed off with a water spray.</li> </ul>
<b>Processing / Working time</b>	<ul style="list-style-type: none"> <li>■ approx. 20 minutes</li> <li>■ The processing time will be extended at low temperatures and/or high air humidity and shortened at high temperatures and/or low air humidity.</li> <li>■ Timings relate to +20°C and 60% relative humidity.</li> </ul>
<b>Drying / Hardening</b>	<ul style="list-style-type: none"> <li>■ The freshly grouted area must be closed to traffic for at least 24 hours.</li> <li>■ When working indoors, ensure good ventilation.</li> </ul>
<b>Cleaning the tools</b>	<ul style="list-style-type: none"> <li>■ Clean all tools and equipment with water immediately after use.</li> </ul>
<b>Notes</b>	<ul style="list-style-type: none"> <li>■ Optically related areas must be prepared with material from the same production batch to prevent colour differences.</li> <li>■ In case of hail and heavy rain, the grouted area must be covered.</li> <li>■ Any glossiness remaining on the surface of the paving after cleaning will weather away over time.</li> <li>■ In the case of particularly light-coloured and porous types of paving block, the binder can cause certain effects such as a darkening of the colour.</li> <li>■ In order to achieve an optimum appearance, we recommend that you first grout a sample area paved with the type of paving units in question.</li> <li>■ Over time, some discolouration could take place due to the effects of dirt and weathering.</li> <li>■ Binding agent residue, appearances of sheen and discolouration can be reduced by using tubag FHI. We recommend making a trial area to test the effect.</li> </ul>

## PACKAGING

- 15 kg/bucket

## STORAGE

- Store in the original, unopened packaging in dry, frost-free conditions.
- We recommend that the product be used within 12 months of the date of manufacture.
- For date of manufacture, see separate sticker.

## QUANTITIES REQUIRED / YIELD

Format / top surface	Quantity required, approximate
Slab size* 600 x 400 mm	0.7 kg/m <sup>2</sup>
Slab size* 600 x 600 mm	0.6 kg/m <sup>2</sup>
Slab size* 800 x 400 mm	0.7 kg/m <sup>2</sup>
Slab size* 800 x 800 mm	0.5 kg/m <sup>2</sup>
Slab size* 1200 x 400 mm	0.6 kg/m <sup>2</sup>
Large paving units** 160 x 190 mm	5.0 kg/m <sup>2</sup>
Large paving units** 140 x 170 mm	5.5 kg/m <sup>2</sup>
Small paving units** 100 x 100 mm	9.0 kg/m <sup>2</sup>
Small paving units** 90 x 90 mm	9.5 kg/m <sup>2</sup>
Mosaic paving** 60 x 60 mm	13 kg/m <sup>2</sup>
Mosaic paving** 50 x 50 mm	15 kg/m <sup>2</sup>

\*Calculation example - joint width: 5 mm / joint depth: 20 mm

\*\*Calculation example - joint width: 8 mm / joint depth: 30 mm

## TECHNICAL DATA

<b>Fresh raw density</b>	approx. 1.8 kg/dm <sup>3</sup>
<b>Compressive strength</b>	≥ 15 N/mm <sup>2</sup>
<b>Joint width</b>	3 - 30 mm
<b>Joint depth</b>	≥ 25 mm (small paving), ≥ 30 mm (large paving)
<b>Processing temperature</b>	+5°C to + 25°C
<b>Processing time</b>	approx. 20 minutes

All data are average values which have been obtained under laboratory conditions in accordance with relevant test standards and application trials at +20°C and 60% relative air humidity. Deviations are possible under practical conditions.

## SAFETY AND DISPOSAL INSTRUCTIONS

### Safety

- Comprehensive instructions can be found in the DGUV Regulation 113-012 (previously BG regulations 227) “Activities with epoxy resins” issued by the trade associations.
- Further information can be found in the safety data sheet at [www.tubag.de](http://www.tubag.de).

### Disposal

- Completely empty and recycle the packaging.
- Leftover, hardened material can be disposed of in accordance with waste code number 08 04 09 (adhesive waste and sealing compound waste containing organic solvents or other dangerous substances).

## GENERAL INFORMATION

This information sheet provides only general recommendations. Should you have any queries relating to a specific application, please contact our technical sales advisor or call our hotline: +49 541 601-601. All of the details given are based on our current knowledge and experience and on the assumption that the materials are professionally applied and used for their normal purpose. All of the details are non-binding and do not release users from their duty to undertake their own tests to ensure suitability for the intended application. Due to the effects of different weather, processing and construction site conditions, no guarantee can be given for the general validity of all details. We reserve the right to make changes as a result of further development of the product and applications engineering. The general rules for construction engineering, the valid standards and guidelines, and the technical working guidelines must be observed. The publication of this technical data sheet renders all previous editions of this data sheet void. Please obtain the latest information from our website.