

**Paving grout** 



tubaq

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

- can also be used in drizzle, then no covering is necessary
- sweeper suction machines suitable
- frost and de-icing salt-resistant
- no water addition necessary
- water-permeable
- for light to medium traffic load
- compressive strength: ≥ 25 N/mm<sup>2</sup>

## APPLICATIONS

- for repointing and repairing natural, concrete and clinker pavements
- suitable for use-category N3 according to ZTV Wegebau (extra technical requirements for road building)
- for traffic surfaces with vehicles up to 20 t

### PROPERTIES

- very good water permeability
- self-compacting
- can also be used in drizzle
- for joint widths  $\geq$  5 mm
- open-pored
- frost-resistant and water-resistant after hardening
- Chlorine-resistant after hardening
- can withstand vehicle loads
- effective in preventing weed growth in the joints
- sweeper suction machines suitable

#### COLOURS

sand, stone grey, basalt

#### COMPOSITION

- Epoxy resin, epoxy hardener
- functional fillers

PFM2

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SUBSTRATE	
Properties/tests	<ul> <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>The required joint depth is at least 30 mm, with bound bedding layer at least 20 mm.</li> <li>For surfaces subject to traffic, the joint depth is at least 2/3 of the stone height.</li> <li>Dimensions differing from these details are to be agreed with our application technology department.</li> <li>Required minimum joint width: 5 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>
Pretreatment	<ul> <li>The required joint depth should be created by blowing or scoring out the joint. The paving surface should then be cleaned dry.</li> <li>Depending on the absorption behaviour the paving surface should be wetted thoroughly several times. However, there should be no standing water in the joints when applying the paving stone grout mortar.</li> <li>If necessary, apply tubag FHI over the entire surface of the pavement 24 hours before the jointing work to minimise binder residues (for application see TM tubag FHI).</li> </ul>



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PROCESSING	
Temperature	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.
Mixing / Preparation / Processing	<ul> <li>Add the hardener component to the bucket. Mix the mortar in a compulsory mixer or with a mortar whisk.</li> <li>The mixing time of both components must be at least 3 minutes until optimum mortar consistency (foaming) is achieved.</li> <li>Repotting is recommended.</li> <li>No addition of water is required.</li> <li>Depending on site requirements, up to one litre of water can be added to the mortar during the mixing process to increase the flowability.</li> </ul>
Processing	<ul> <li>Distribute the homogeneously mixed mortar onto the well pre-wet paving area and work into the joints with a rubber squeegee.</li> <li>The spreading as a slurry grout can be supported/optimised by a light spray mist (e.g. with the tubag spray nozzle).</li> <li>After approx. 10 to 15 minutes, the joints are swept lengthways and crossways with a hard broom.</li> <li>After 10 to 15 minutes, the film of binder remaining on the stones is sprayed off with a mist of water.</li> </ul>
Processing / Working time	<ul> <li>Approx. 20 minutes at 20°C and 65% relative air humidity</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> </ul>
Drying / Hardening	<ul> <li>The paving area can be walked on by pedestrians after approx. 24 hours and can withstand full loads at the earliest after 7 days (at +20°C and 60 % rel. humidity).</li> <li>When working indoors, ensure good ventilation.</li> </ul>
Cleaning the tools	Clean all tools and equipment with water immediately after use.
Notes	<ul> <li>Optically related areas must be prepared with material from the same production batch to prevent colour differences.</li> <li>Working in several steps, intermesh the bedding layer and joint filling by at least 1 m so that the joint filling does not end directly above the end of the last bedding section.</li> <li>Leaking joints should be avoided.</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>Over time, some discolouration could take place due to the effects of dirt and weathering.</li> <li>These statements are based on extensive tests and practical experience. However, they are not transferable to every case. To assess the optimal appearance, we recommend laying a sample surface with the respective pavement element.</li> </ul>

## PACKAGING

### 25 kg/PP 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.

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QUANTITIES REQUIRED / YIELD				
	Top surface	Quantities required* 8 mm joint width	Quantities required* 12 mm joint width	
Large paving units	140 x 160 mm	approx. 4.6 kg/m <sup>2</sup>	approx. 6.7 kg/m <sup>2</sup>	
Small paving units	90 x 110 mm	approx. 6.8 kg/m <sup>2</sup>	approx. 9.8 kg/m <sup>2</sup>	
Mosaic paving	40 x 60 mm	approx. 12.8 kg/m <sup>2</sup>	approx. 18.0 kg/m <sup>2</sup>	

\*Calculation example for 30 mm joint depth

TECHNICAL DATA	
Grain	0,2 – 1,2 mm
Fresh raw density	approx. 1.45 kg/dm <sup>3</sup>
Compressive strength	≥ 25 N/mm²
Joint width	≥ 5 mm
Joint depth	$\geq$ 30 mm, with bonded bedding layer $\geq$ 20 mm
Processing temperature	+5°C to + 25°C
Processing time	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	<ul> <li>Comprehensive instructions can be found in the DGUV Regulation 113-012 (previously BG regulations 227) "Activities with epoxy resins" issued by the trade associations.</li> <li>Follow further instructions in the safety data sheet.</li> </ul>
Disposal	Leftover, hardened material can be disposed of in accordance with waste code number 08 04 09 (adhe- sive 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.