TECHNICAL DATA SHEET

MARBOS Pavement joint mortar PFM-EPW-HF

Fast-setting, two-component, water-impermeable, synthetic resin-bonded special mortar for outdoor use.

Application areas:

Suitable for a bonded construction method.
For highly stressed paved surfaces such as rail areas, bus lanes, loading lanes, traffic circle structures, and hydraulic structures.
As bedding mortar for early stressed repairs.
As bedding mortar for metal manhole covers.
As a curbstone laying and adhesion mortar.

Suitable for use category N1 to N3 according to ZTV road construction.
N1: Walkable surface pavements not intended for motor vehicles and comparable uses outside areas of road traffic (e.g. terraces, garden paths, paths in home garden areas, seating areas in parks).

N2: Pavements for vehicles up to 3.5 t permissible total weight outside of road traffic areas (e.g. garage driveways, carports, parking spaces, paths in green areas). Note: not suitable for vehicles with high point loads, e.g. industrial trucks, forklifts, lift trucks, lifting platforms.

N3: Trafficable surface pavements like load category 2, but with occasional traffic with vehicles up to 20 t permissible total weight with wheel loads ≤ 5 t outside of areas used by road traffic (e.g. care, maintenance and escape routes as well as fire department, garage and building access roads).

For load classes up to and including Bk 10 according to RSTO 12.

For joint widths starting at 8 mm.

- For outdoors

Properties:

- Water impermeable when properly compressed
- two-component
- Very high strengths
- High mechanical resistance (e.g. sweeping and cleaning machines)

Material basis:

- Water-emulsifiable epoxy resin systems
- Mineral graded aggregates

MARBOS GmbH & Co. KG ● Sanierungssysteme, Spezialbaustoffe ● Kressenweg 15 ● 44379 Dortmund ● Tel. +49 231 9958-100 ● Fax +49 231 9958-139 ● info@marbos.de ● www.marbos.de
Ein Unternehmen der Knauf-Gruppe

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Technical data:	Colour	gray, stone gray, sand, anthracite
	Joint width*	> 8 mm
	Joint depth **	> 30 mm For traffic, jointing at full stone height.
	Processing temperature	+8 °C to +25 °C
	Processing time	ca. 20 minutes
	Walkable	after ca. 4 hours
	Bedding/special mortar (without water addition) Compressive strength after 4 hours 6 hours 24 hours 7 days	 ca. 30 N/mm² ca. 50 N/mm² ca. 65 N/mm² ca. 80 N/mm²
	Bedding/special mortar (without water addition) Bending tensile strength after 4 hours 6 hours 24 hours 7 days	 ca. 10 N/mm² ca. 20 N/mm² ca. 35 N/mm² ca. 80 N/mm²
	Joint mortar (slurable) Compressive strength after 4 hours 6 hours 24 hours 13 days	 ca. 6 N/mm² ca. 8 N/mm² ca. 14 N/mm² ca. 65 N/mm²
	Joint mortar (slurable) Bending tensile strength after 4 hours 6 hours 24 hours 13 days	 ca. 3 N/mm² ca. 5 N/mm² ca. 7 N/mm² ca. 22 N/mm²
	Bending tensile strength	after 7 d ca. 1,5 N/mm²
	E-Modul stat.	ca. 9300 N/mm²
Substrate preparation:	The substrate must be load-bearing and permanently drainable to absorb the expected traffic loads. The expected loads must be absorbed. Sagging of the pavement under load will lead to crack formation. To prevent separation layers and to ensure optimum adhesion of the pavement joint mortar to the stone flanks, only use paving stones that are clean on all sides. An inadequately water-permeable superstructure accumulates the water and leads to disturbances in the setting behavior, as well as to damage of the joints when exposed to frost.	

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Substrate preparation:	Permanent is an installation in our water-permeable bedding mortar with bonding agent. Increased crack formation can occur with an unbound bedding. When used on surfaces subject to traffic, joint filling is required at full joint height. Pre-wet the paved surface to be jointed thoroughly and, if necessary, several times. An appropriately dimensioned flexible strip must be applied to vertical components in order to avoid internal stresses. Movement joints from the sub-structure must be transferred to the superstructure. Depending on the size and geometry of the surface, movement joints must be provided.
Working:	Do not mix with other substances. Transfer the premixed sand component into a clean mixing vessel with a smooth bottom and mix thoroughly with the additionally supplied hardener component, Mixing time ca. 4 minutes, a stirrer with ca. 600 RPM is recommended. **As pavement joint mortar** After mixing, add max. 3 liters of clean water and stir with a compulsory mixer for ca. 2 minutes to a foamy mass. Pour the compound onto the moistened surface - in several places in the case of larger surfaces - and spread it into the joints with a rubber scraper, work it in carefully and compact it. For joint depths greater than 5 cm, additional compression is required during application. **Water impermeable joints can only be achieved by good compression, e.g. with a joint iron or tamper, but are no substitute for a sealant.** After 10 - 20 minutes (depending on temperature), sweep the surface crosswise with a medium-hard broom, e.g. coconut broom, closing and smoothing the joint surface evenly. Discard the cleanup volumes. **As bedding / repair / laying and bonding mortar** Apply the stiff-plastic special mortar in 8 mm (adhesive mortar) up to 40 mm layer thickness (bedding mortar). Prime the stone bottom side with MARBOPOX GM 3 as a bonding agent and lay/set fresh in fresh.
Post-treatment:	Protect the fresh joints against heavy rain during the hardening phase (1 day at 20°C). After 24 hours (at 20°C) can be opened for pedestrian traffic. Protect from frost for 6 days. If foils are used, they must be ventilated to prevent the formation of condensation. Remove any remaining mortar with a suitable EP cleaner (e. g. LITHOFIN Resin-EX). Please check the compatibility before use, the specifications of the product manufacturer's must be observed. Check suitability in advance.
Packaging:	• 25 kg bucket incl. hardener component - 24 pieces/pallet • 25 kg yields ca. 15 liters of special mortar

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Storage:	• In sealed, undamaged buckets protected from weather and frost for 24 months. • Protect container from direct sunlight.
Waste management:	Hardened product remainders to be wasted as common rubble under code no. 17 09 04.
Cleaning:	Cleaning work can be performed with high-pressure equipment at max. 120 bar at a distance of min. 20 cm and with a surface nozzle; broken-out pieces of joint indicate that the pressure is too high and can be regrouted with fresh pavement joint mortar. Immediately clean containers, tools, etc. with water. Cleaning is only possible by mechanical means once the product has hardened.
Safety note:	• The product is intended for professional users. • Epoxy resin-based binder. • GISCODE RE 30 (Epoxy resin products, sensitizing, total solid). • **Before processing, observe the safety instructions on the packaging and consult the safety data sheet!** • Use only in well-ventilated areas. • Wear suitable protective clothing, protective gloves and safety goggles/face protection. • Keep out of the reach of children.
Note:	• The technical data relates to +20 °C and 50 % rel. humidity. Lower temperatures extend the specified values, higher temperatures shorten them. • While the product is setting, protect it against direct sunshine, draughts, frost, driving rain as well as excessively high (> 25 °C) and excessively low (< 8 °C) temperatures. • For stones and plates with circumferential spacers, the drainage capacity is not sufficient. • In the case of chamfered pavement, the joint must only be filled to the lower edge of the chamfer. • Pavement joint mortar is made from natural raw materials, which are subject to natural color variations. Therefore, color differences between different containers are no reason for complaint. • Only use material from one charge on contiguous surfaces. • Pre-treatment with an impregnation/grouting aid (e.g. LITHOFIN Basic Protection) can reduce product residues on the stone surface, as well as gloss sheens and changes in color shade. • Check compatibility with light-colored stones and with artificial stones (cement- or plastic-bonded) or surface-treated stones! • For the work to be performed, the relevant recommendations, guidelines, standards and regulations as well as the generally recognized rules of technology must be observed. • In particular, we recommend that the following regulations be the following regulations: **DIN 18318** VOB - Part C: (ATV) - Paved surfaces and slabbed surfaces, edgings, **ZTV-path construction** additional technical contract conditions for the construction of paths and squares outside road traffic areas. • In cases of doubt, create trial areas.

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Quality Control: Subject to continuous internal and external monitoring.
Production and WPK are certified according to DIN EN ISO 9001.

Consumption overview: ca.- data for a joint depth of 3 cm

Pavement format	Edge length [cm]	Joint width [mm]	Consumption [kg/m²]
Large pavement	14 / 17	10	ca. 6,6
	14 / 17	15	ca. 9,6
Small pavement	8-9	10	ca. 11,4
	10-11	10	ca. 9,4
Mosaic pavement	5-7	10	ca.15,8
	3-7	10	ca. 20,3

The consumption values are ca. - values, which have been calculated based on our experience. Depending on processing and surface finish, the actual material requirements may deviate.

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