

## MARBOS Paving joint mortar

## PFM 1-K BASIC

For water-permeable jointing of narrow joints of lightly stressed surfaces.



### Application areas:



For water-permeable jointing.  
For jointing old or new paving in outdoor areas.  
For natural stones, concrete blocks, clinker and ceramic coverings.

Suitable for use category N1 to N3 according to ZTV path 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).

For joint widths starting at 3 mm.

- For outdoors

### Properties:

- Water permeable
- Ready for use
- 1-component synthetic resin mortar
- Air oxygen hardening
- For water permeable substrates
- Can be washed in with water
- Effectively prevents weed growth of the joint
- Easy processing without mixing
- Easy cleaning due to Comfort-Clean-System CCS

### Material basis:

- Special synthetic resins
- Mineral graded aggregates

### Technical data:

Colour	stone gray, sand, anthracite
Joint width *	≥ 3 mm
Joint depth **	≥ 30 mm
Processing temperature	+5 °C to +30°C (soil, air, material)
Processing time	ca. 50 minutes at 20°C after opening the foil
Walkability	after ca. 24 hours at 20 °C
Resilient	after ca. 7 days at 20°C/50% humidity
Compressive strength	ca. 8 N/mm <sup>2</sup>
Bending tensile strength	ca. 3 N/mm <sup>2</sup>
Water permeability value	ca. 60 x 10 <sup>-5</sup> m/s

\* From 20 mm joint width, the joint depth must be at least 1.5 times the joint width.

\*\* In the case of a deformation-resistant mortar bed and a firm bond with the stone or plate as well as foot traffic, the joint depth can also be less, but must not undercut 15 mm.

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<b>Substrate preparation:</b>	<p>The substrate must be load-bearing and permanently drainable to withstand the expected traffic loads.</p> <p>The expected loads must be absorbed. Sagging of the pavement under load will lead to cracking.</p> <p>To prevent separation layers and to ensure optimum adhesion of the paving joint mortar to the stone flanks, only paving stones that are clean on all sides are to be used.</p> <p>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.</p> <p>Permanent is the laying in our water-permeable bedding mortar with bonding agent. Increased cracking may occur with unbound bedding.</p> <p>An appropriately dimensioned flex strip must be attached to rising components to avoid residual stresses. Movement joints from the substructure must be transferred to the superstructure.</p> <p>Depending on the size and geometry of the surface, movement joints are to be provided.</p>
<b>Processing:</b>	<p>The grout is delivered ready for installation in sealed buckets.</p> <p>Do not mix with other materials.</p> <p>Pre-wet the paved surface to be grouted thoroughly and several times if necessary.</p> <p>Cut open the sealing film, immediately afterwards, spread the paving joint mortar over the surface in several places, work it into the joints with a rubber slider and slurry it in with a soft water spray jet.</p> <p>For vertical joints, the material can also be applied to the joints without adding water. Complete joint filling must be ensured in any case.</p> <p>After opening the container, it must be processed completely, as the material reacts immediately with atmospheric oxygen.</p> <p>Sufficient joint-filling compaction is necessary to achieve strong and durable joints.</p> <p>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.</p> <p>Discard the cleanup volumes.</p>
<b>Post-treatment:</b>	<p>Protect the fresh joints against heavy rainfall during the curing phase (1 day at 20°C).</p> <p>After 24 hours (at 20°C) can be opened for pedestrian traffic.</p> <p>Protect against frost for 6 days.</p> <p>If foils are used, they must be ventilated to prevent formation of condensation.</p>
<b>Packaging:</b>	<ul style="list-style-type: none"> <li>• 25 kg bucket - 24 pieces/pallet</li> </ul>
<b>Storage:</b>	<ul style="list-style-type: none"> <li>• In sealed, undamaged buckets protected against weather and frost for 12 months.</li> <li>• Pallets must not be stacked on top of each other.</li> <li>• Protect container from direct sunlight.</li> </ul>
<b>Waste management:</b>	<p>Hardened product remainders to be wasted as common rubble under code no. 17 09 04.</p>

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### Cleaning:

Cleaning work can be carried out with high-pressure equipment at max. 120 bar at a distance of min. 20 cm and with a surface nozzle. Chipped pieces of joint indicate excessive pressure and can be regrouted with fresh paving joint mortar.  
Regular cleaning maintains water permeability.  
Immediately clean containers, tools, etc. with water. Cleaning is only possible by mechanical means once the product has hardened.

### Safety note:

- Wear suitable protective gloves.
- Provide good ventilation.
- May cause temporary odor nuisance in poorly ventilated areas.
- Keep out of the reach of children
- Additional information: see safety data sheet.

### Note:

- Technical values relate to 20 °C / 50% rel. humidity. Low temperatures and moisture lead to delayed setting, high temperatures result in faster setting.
- For stones and plates with circumferential spacers, the drainage capacity is not sufficient.
- In the case of chamfered paving, the joint may only be filled to the lower edge of the chamfer.
- Do not use in permanently wet areas (e.g. around public swimming pools) or in cases of waterlogging.
- Paving joint mortars are made from natural raw materials which are subject to natural color variations. Therefore, color differences between different containers do not constitute a reason for objection.
- Only use material from one charge on connected surfaces.
- During bucket handling, e.g. transport, the sealing film must not be damaged, otherwise the material will harden.
- 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 accepted rules of technology must be observed.
- We recommend in particular to observe 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 case of doubt, create test surfaces.

### Quality control:

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

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

Format [cm]	Joint width [mm]	Consumption [kg/m <sup>2</sup> ]	Joint width [mm]	Consumption [kg/m <sup>2</sup> ]
8 – 9	5	ca. 5,7	10	ca. 10,8
10 – 11	5	ca. 4,7	10	ca. 8,9
10 – 20	5	ca. 3,7	10	ca. 7,1
14 – 17	5	ca. 3,2	10	ca. 6,2
30 – 30	5	ca. 1,7	10	ca. 3,3
40 – 40	5	ca. 1,3	10	ca. 2,5
60 – 60	5	ca. 0,9	10	ca. 1,7
80 – 40	5	ca. 1,0	10	ca. 1,9

The consumption values are approximate values that have been calculated on the basis of our experience. Depending on processing and surface condition, the actual material requirement may deviate.

During execution of work the relevant recommendations and guidelines, rules and standards, relevant technical instruction leaflets as well as the acknowledged rules of architecture and engineering have to be regarded. We do not have any influence on different weather/substrate and object conditions. Our written and spoken application/technological recommendations handed out to customers and craftsmen respectively are without obligation and do not constitute any contractual legal relationship and no lateral duty of a sales contract. All indications and recommendations of technical data sheets refer to standard purpose of use. With the publication of this technical instruction sheet, the previous ones lose their validity. This is a translation. Please refer in any case of misunderstanding the relevant German technical data sheet. Ed 17.02.2023