



Sopro EPF

Two-component epoxy paving grout

594 pavement grey 13 · 595 sand 36 · 596 anthracite 66

Excellent
draining
capacity



Water-emulsifiable, two-component epoxy resin grout for natural stone, concrete and clay paving units in areas subject to light to medium duty.

- For joint widths upwards of 5 mm
- Pervious
- Straightforward application
- May be slurry-applied
- Resistant to suction sweeper loads
- Resistant to frost and de-icing salts
- Resistant to high-pressure cleaning equipment
- With official test certificates
- Suitable for use categories N1 and N2 under ZTV Wegebau (German Special Technical Conditions and Guidelines for Pathways and Squares) and VBK 1 and VBK 2 under DNV Pflaster (German Natural Stone Association Segmental Pavement Guidelines; 2014)
- For outdoor use

Use

For grouting outdoor natural stone, concrete and clay segmental pavements of bound construction (i.e. rigidly installed, using bedding material with binder) and of unbound construction (only for light loads – pedestrian traffic). Also suitable for grouting untreated cast stone units. Trial grouting is required for factory-treated/factory-finished cast stone units! In light- to medium-duty areas, e.g. pedestrian precincts, parks, residential streets and car parks. Sopro EPF is a pervious grout.

Mixing ratio

Approx. 2.0 ltr water : 25 kg Sopro EPF
(24.50 kg Component A and 0.50 kg Component B)

Working life

Approx. 45 minutes

Walkable

After approx. 24 hours at +20°C/after approx. 30 hours at +10°C

Loadable

After approx. 7 days

Suitability for high-pressure water jetting equipment

Up to 120 bar (minimum distance approx. 20 cm).
Grouted joints are resistant to high-pressure water jetting after approx. 7 days.

Flexural tensile strength

≥ 12 N/mm²

Compressive strength

≥ 30 N/mm² (compressive strengths of up to 38.0 N/mm² are achievable under optimum laboratory conditions)

Elastic modulus

6,200 N/mm²

Water permeability

80 × 10⁻⁵ m/s

Joint width/depth

From 5 mm/min. 30 mm
From 15 mm/min. 2 x joint width

Note: For 5–8 mm joint widths, Sopro EPF requires particularly intensive compaction. For bound constructions in mortar bed and areas subject to pedestrian traffic, joint depth may also be smaller, though shall be no less than 18 mm. For further details, please contact our Technical Service team on +49(0) 611 17 07-1 11.

Application temperature

From +8°C to +30°C (substrate, air, material)

Coverage

5–15 kg/m², depending on joint width and depth (1.7 kg for 1 ltr fresh mortar)

Shelf life

Approx. 18 months, subject to storage on pallet in dry, cool conditions in original unopened containers. Protect from frost.

Packaging

25 kg bucket incl. curing agent (24.50 kg sand/resin mix, 0.50 kg curing agent)

Properties

Sopro EPF is a pervious, frost- and de-icing salts-resistant, two-component epoxy resin paving grout for joint widths upwards of 5 mm. Its emulsivity in water lends it an easily workable consistency that allows slurry application.

Substrate preparation

Sufficiently pervious substrate (chippings, gravel or drainage mortar bed) shall comply with good practice and be suitably designed to meet future loads.

Settlement and destruction of joints may result where base is insufficiently strong.

Where base is inadequately pervious, moisture will accumulate and, in case of frost, lead to destruction of joints.

Clean joints thoroughly prior to grout application. Pre-wet area to be grouted to eliminate suction of paving unit surface immediately prior to grouting. No standing water shall, however, be allowed to accumulate in open joints.

Pretreatment with Sopro FH 867 paving grout cleaning aid of surface to be grouted is recommended to reduce glossing and grout residue left on pavement. (Please observe guidelines in Sopro FH 867 technical data sheet.) In case of regrouting or replacement of sand filling, complete removal of any growth is essential.

Application

Place sand premixed with resin in clean mixing container and add all curing agent (plastic bottle). Thoroughly mix material for at least 4 minutes at approx. 400 rpm using hand-held electric stirrer/drill with large stirrer basket (min. 110 mm diameter). Then add approx. 2 ltr water to mix and restir for at least 2 minutes to homogeneous, white, foaming consistency.

Slurry apply mix to prepared, ungrouted surface, using rubber squeegee to fill joints and compact material. After application of one container, though at latest after approx. 15 minutes, sweep pavement clean of surplus material with soft (coconut) broom, working diagonal to joints and at same time smoothing joint surface. Mortar residue shall not be swept into any other joints that are still open.

Cover freshly grouted surface with sheet for 24 hours to protect against moisture, dust and other dirt/contamination. Sheet shall not lie flat, but shall permit ventilation of grouted surface.

Grouted joints are fully loadable after approx. 7 days.

Note: Depending on nature of paving material, some grout residue may remain and intensify or modify pavement colouring. Glossing and colour changes may occur in some cases. These surface changes will, however, disappear over time where pavement is freely weathered and exposed to mechanical abrasion! Trial application on sample surface is recommended!

Regular cleaning of joints and removal of dirt/soiling are essential in order to ensure long-term water permeability of Sopro EPF paving grout!

Application of material from a single batch is likewise recommended.

Specified times

Apply for normal temperature range of +20°C and 50% rel. relative humidity. Higher temperatures shorten and lower temperatures lengthen these times.

Tools/tool cleaning

Drill with stirrer basket (min. 110 mm diameter), forced-action mixer, (90 ltr) mortar tub, water hose with spray nozzle, rubber squeegee and soft (coconut) broom; wash tools with water immediately after use.

Disposal Considerations

Component A: Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force. This material and its container must be disposed of as hazardous waste. 91/156/EEC, 91/689/EEC, 94/62/EC and subsequent amendments.

Component B: Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

Dispose of this material and its container to hazardous or special waste collection point.

Use appropriate container to avoid environmental contamination.

91/156/EEC, 91/689/EEC, 94/62/EC and subsequent amendments.

Test reports

University of Wuppertal:

- Compressive and flexural tensile strength to DIN 18555 Part 3 and DIN EN 12390: 12.2/38.0 N/mm²
- Determination of elastic modulus to DIN EN 13412: 6,200 N/mm²
- Determination of drainage performance to DIN 18507: 80 × 10⁻⁵ m/s

Safety precautions

All standard precautions for the handling of construction materials/chemicals shall be taken.

Labelling in accordance with Regulation (EC) No 1272/2008 (CLP):

Component A (sand/resin mix):

GHS05

Signal word: Caution

Contains: bisphenol A-epichlorohydrin resins, MW ≤ 700, bisphenol F-epichlorohydrin resin, MW ≤ 700, 1,4-bis(2,3-epoxypropoxy)butane.

Hazard statements: H317 May cause an allergic skin reaction. H412 Harmful to aquatic life with long-lasting effects.

Supplemental hazard information: EUH205 Contains epoxy constituents. May produce an allergic reaction.

Precautionary statements: P102 Keep out of reach of children. P261 Avoid breathing dust. P273 Avoid release to the environment. P280 Wear protective gloves/protective clothing/eye protection/face protection. P302+P352+P312 IF ON SKIN: Wash with plenty of water and soap. Call a POISON CENTER or doctor if you feel unwell. P332+P313 If skin irritation occurs: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse.

Component B (curing agent):

GHS05, GHS07, GHS08, GHS09

Signal word: Danger

Contains: Benzyl alcohol; 3-aminomethyl-3,5,5-trimethylcyclohexylamine; 1,3-benzene dimethanamine; nonylphenol.

Hazard statements: H302+H312+H332 Harmful by inhalation, skin contact or if swallowed. H314 Causes severe skin burns and eye damage. H317 May cause an allergic skin reaction. H361 Suspected of damaging fertility or the unborn child.

H410 Very toxic to aquatic life with long-lasting effects.

Precautionary statements: P102 Keep out of reach of children. P201 Obtain special instructions before use. P280 Wear protective gloves/protective clothing/eye protection/face protection. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P310 Immediately call a POISON CENTER or doctor. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P332+P313 If skin irritation occurs: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse.

For trade applicators only!

Transport regulations to ADR/RID/GGVSEB (German Dangerous Goods Ordinance for Road, Rail and Inland Navigation Transport): Class: 8; Classification code: C7; UN no: 2735; Kemler code: 80; Packing group: II; Tunnel restriction code: E

Application of Sopro EPF two-component epoxy paving grout



1 Pre-wet cleaned pavement to be grouted.



2 Add curing agent and stir Sopro EPF.



3 After preparation of Sopro EPF, add approx. 2 ltr water and restir.



4 Workable Sopro EPF.



5 Fill joints with Sopro EPF.



6 Clean grouted pavement.

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