

Best.-Nr.
611

Sopro BSF 611

Paving grout for concrete units



Ideal for grouting
joints in precast-concrete
channels

Rapid-set, trass-bearing, cementitious grout for medium- to heavy-duty concrete segmental pavements. Meets CG2 WA requirements to DIN EN 13888. Low-chromate to Regulation (EC) No 1907/2006, Annex XVII.

- For 5–30 mm joint widths
- Particularly suitable for grouting joints in concrete segmental pavements
- Compressive strengths $\geq 30 \text{ N/mm}^2$
- Resistant to suction sweeper loads
- Resistant to high-pressure cleaning equipment
- Resistant to freeze-thaw cycles
- Early walkability and loadability
- Suitable for use categories N1–N3 under ZTV Wegebau (Special Technical Conditions and Guidelines for Pathways and Squares), VBK 1–6 under DNV "Pflaster" (German Natural Stone Association Segmental Pavement Guidelines; 2014), and Bk 0,3–1,8 under RStO (Guidelines for Standardization of Vehicular Pavements; 2012)
- For indoor and outdoor use
- For floors
- Colour: grey 15

Use

Particularly suitable for grouting joints in concrete segmental pavements in gardens/landscaped areas and in medium- to heavy-duty vehicular pavements of bound construction (i.e. rigidly installed), including areas exposed to frost and dew.

Specially tailored to properties of concrete pavers (e.g. in respect of strength and temperature behaviour). Suitable for linear structures, e.g. roads and drainage channels, for roundabouts and for hard landscaped areas, e.g. marketplaces.

Use of Sopro PFM high-strength paving grout is recommended for natural stone segmental pavements. Sopro TNF natural stone grout with trass is recommended for grouting polygonal ("crazy") paving units.

Mixing ratio

3.5–4.0 ltr water : 25 kg Sopro BSF 611, depending on required consistency

Maturing time

3–5 minutes

Working life

Approx. 20 minutes; stiffened mortar shall not be retempered by addition of water or fresh mortar to restore workability

Walkable

After 2–2.5 hours

Loadable

After approx. 6 hours; by vehicular traffic after approx. 3 days

Suitability for high-pressure water jetting equipment

Up to 160 bar (minimum distance approx. 20 cm); up to 120 bar after 3 days and up to 160 bar after 28 days

Flexural tensile strength

$\geq 7 \text{ N/mm}^2$

Compressive strength

$\geq 30 \text{ N/mm}^2$

Application temperature

Between +5 °C and max. +25 °C

Joint width

5–30 mm

Coverage

1.9 kg for 1 ltr fresh grout, e.g. approx. 15 kg powder per m² for 10×20 cm or 15×15 cm concrete pavers with 1 cm joint width and 6 cm joint depth

Application of Sopro BSF 611 paving grout for concrete units



1 Pre-wetting of cleaned pavement to be grouted.



2 Preparation of Sopro BSF 611.



3 Pouring of Sopro BSF 611 onto pavement.



4 Filling of joints with Sopro BSF 611.



5 Washing down of pavement with cleaning machine ...



6 ... or sponge float.



7 Spraying down with fine water spray jet after Sopro BSF 611 begins to set.



8 Grouted concrete segmental pavement.

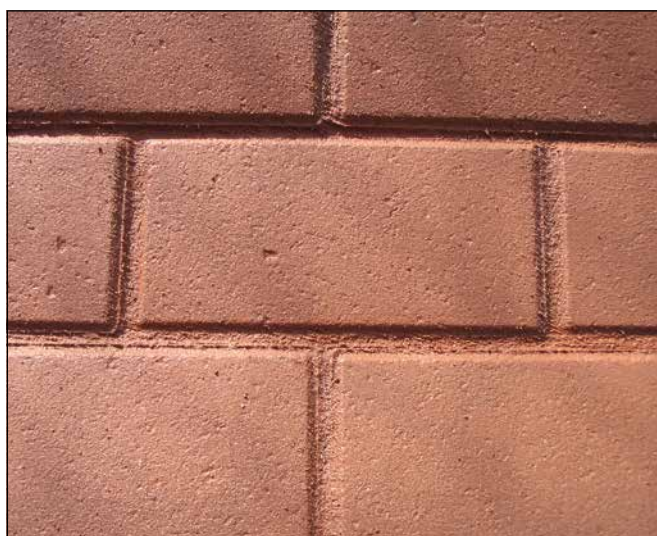
Pigmentation of Sopro BSF 611



1 Addition of pigments allows preparation of grout in a variety of colours.



2 Application of suitably tinted Sopro BSF 611.



3 Exposed chamfer at joints, with colour of Sopro BSF 611 matching concrete pavers through addition of pigment.

Shelf life

Approx. 12 months, subject to storage on pallet in dry conditions in original unopened containers

Packaging

25 kg bag

Properties

Sopro BSF 611 is a rapid-set, hydraulic, trass-bearing paving grout, meeting CG2 WA requirements to DIN EN 13888, for 5–30 mm joint widths. Special additives lend grout its compact, medium- to high-strength microstructure, thereby making it suitable for medium- to heavy-duty vehicular pavements. Contains Rhenish trass. Formulation is specially tailored to properties of concrete pavers (e.g. in respect of strength and temperature behaviour).

Substrate preparation

Substrate/base shall be designed with adequate strength to accommodate anticipated loads. With medium- to heavy-duty applications, serviceability and durability of grout is only achievable in conjunction with a bound (rigid) substrate/base. Rigid installation of paving units in lean concrete is recommended. Sagging of pavings due to inadequate strength may lead to rupture at joint faces and failure of grouted joint. Allow bedding mortar (e.g. Sopro DM 610 drainage mortar, Sopro DMX 619 drainage mortar eXtra) to harden. Clean joints thoroughly before bedding mortar hardens. 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. Use of Sopro FH 867 paving grout cleaning aid is recommended to reduce amount of grout residue on surface of pavement. (Please observe guidelines in Sopro FH 867 technical data sheet.)

Application

Fill clean mixing container with approx. 3.5–4.0 ltr water, add correct proportion of grout and mix mechanically using mixing attachment to homogeneous, creamy consistency. After 3–5 minutes maturing time, remix thoroughly. Grout joints with Sopro BSF 611 using rubber squeegee or grout float, applying slight pressure so as to ensure that joints are completely filled. Do not spread any dry mortar powder over freshly grouted surface. Allow adequate drying time for freshly applied grout, then wash down pavement, working diagonal to joints and taking care not to wash out surface of joint. Frequently replace wash water with fresh water. Use Sopro ZEA 703 cement skin remover for exterior use where required. Alternatively, dampen slurry on surface at suitable intervals with spray jet. After Sopro BSF 611 begins to set, surface slurry may then be cleaned off using stronger spray jet and scrubber.

Note:

Trial grouting is generally recommended for paving materials with rough or profiled surface and for natural stone to check that cement and pigment residue can be completely removed.

Freshly grouted surface shall be protected against all action that may impair setting, e.g. high temperatures, wind, rain or frost.

Application in conjunction with particularly high-suction materials may cause colour variations in grout, though these may even out during drying out process.

For maximum colour uniformity, exact compliance with specifications regarding mixing water quantity, homogeneous mixing and maturing time is essential. When cleaning, try to ensure that water application is as uniform as possible.

Unwashed, discolouring sand aggregate present in bedding mortar or discolouring substances from adjoining materials may cause staining.

Minimum joint width of 8 mm shall be ensured for heavy-duty areas.

Other colours:

Sopro BSF 611 is tintable using pigments supplied by relevant concrete product manufacturer.

For further details, please contact our Technical Service team on +49 611 1707-111.

Specified times

Apply for normal temperature range of +23°C and 50% relative humidity; higher temperatures shorten and lower temperatures lengthen these times.

Tools/tool cleaning

Mixing attachment, stainless-steel trowel, rubber squeegee, grout float, sponge float, roller set for cleaning or cleaning machine, e.g. "Berta" or "Rosina" model manufactured by Italmont, water hose with spray nozzle, scrubber; wash tools with water immediately after use.

Safety precautions

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

GHS05

Signal word: Danger

Contains Portland cement. Exhibits strong alkaline reaction upon contact with moisture/water; protection required for skin and eyes. All standard precautions for the handling of construction materials/chemicals shall be taken.

Hazard statements: H315 Causes skin irritation. H318 Causes serious eye damage.

Precautionary statements: P102 Keep out of reach of children. P261 Avoid breathing dust. P280 Wear protective gloves/protective clothing/eye protection/face protection. P302+P352 IF ON SKIN: Wash with plenty of water and soap. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER or doctor. P332+P313 If skin irritation occurs: Get medical advice/attention.

GISCODE (German hazardous substances classification): ZP1 - Low-chromate to Regulation (EC) No 1907/2006, Annex XVII

Disposal

The generation of waste should be avoided or minimized wherever possible. Recover if possible.

A waste code (EWC) according to European List of Waste (LoW) cannot be specified, due to dependence on the usage. Contact and send to an authorized waste disposal service. Methods of disposal: Disposal of this product, solutions, packaging and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor. Do not dispose of waste into sewers. Hazardous waste: Yes. Disposal considerations: Do not allow to enter drains or watercourses. Dispose of product according to all federal, state and local applicable regulations. If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. Dispose of containers contaminated by the product in accordance with local or national legal provisions. For further information, contact your local waste authority. Special precautions: This material and its container must be disposed of in a safe way. Care should be taken when handling untreated empty containers. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Empty containers or liners may retain some product residues. Do not re-use empty containers.

The information, and, in particular, the recommendations relating to the application and end-use of SMET distributed products, are given in good faith based on SMET's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with the manufacturer's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. The manufacturer reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

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