

smet

Sopro DSF 523

One-component flexible sealing slurry



Flexible, one-component, cementitious sealing slurry for installation of crack-bridging waterproof membranes (for composite membrane plus tile finish systems). For waterproofing indoor spaces to DIN 18534 Part 3 and for waterproofing tanks and pools to DIN 18535 Part 3.

- For damp and wet spaces
- For tanks and pools
- Vapour-permeable
- For brush, roller, trowel and spray application
- For walls and floors, indoors and outdoors
- With national test certificates (abP)
- Low-chromate to Regulation (EC) No 1907/2006, Annex XVII.

Use

For installation of waterproof membranes indoors (e.g. in showers, washrooms, toilets) to DIN 18534 Part 3 for water action classes W0-I "Low", W1-I "Moderate", W2-I "High" and W3-I "Very high" (equivalent to Moisture Exposure Classes A and A0 to Construction Products List issued by DIBt (German Institute for Construction Technology) and ZDB (Federation of the German Construction Industry) data sheet).

For installation of waterproof membranes in tanks and pools (e.g. swimming pools) to DIN 18535 Part 3 for water action class W1-B "Up to 4 m water head" (equivalent to Moisture Exposure Class B to Construction Products List).

Suitable substrates

Mineral substrates, including concrete, lightweight concrete, aerated concrete, cement and lime/cement render, gypsum plasterboard and gypsum fibreboard, renders made from masonry cement, plane, flush-jointed masonry (no composite masonry), cement screeds, calcium sulphate (anhydrite and self-levelling anhydrite) screeds, board subfloors, existing ceramic coverings

Mixing ratio

	10 kg Sopro DSF 523	20 kg Sopro DSF 523
Brush application	2.9–3.1 ltr	5.8–6.2 ltr
Trowel application	2.6–2.8 ltr	5.2–5.6 ltr
Spray application	3.7–4.0 ltr	7.4–8.0 ltr

Coat thickness / consumption rate

Coat thicknesses after 2-coat application in accordance with good practice:

Water action classes	Min. dry coat thickness	Min. wet coat thickness	Consumption rate per mm dry coat thickness
W0-I – W3-I	2 mm	2.6 mm	1.4 kg/m ²
W1-B	2.5 mm	3.3 mm	1.4 kg/m ²

In compliance with good practice, flexible mineral sealing slurry shall be applied in at least two coats.

Stated consumption rates are minimum values. Separate, good-practice evening out of substrate, e.g. through application of a skim coat, is a prerequisite.

Under DIN standards, to ensure minimum coat thickness d_{min} , a thickness supplement of up to 25 % of d_{min} may be necessary depending on roughness.

Working life	Approx. 2 hours; stiffened mortar shall not be retempered by addition of water or fresh mortar to restore workability
Drying time	Approx. 4 hours per coat
Ideal application temperature	Between +5°C and +25°C
Walkable	After 5–6 hours
Resistant to water pressure	After approx. 7 days
Shelf life	Approx. 24 months, subject to storage on pallet in dry conditions in original unopened containers
Packaging	20 kg bag, 10 kg bag
Substrate preparation	<p>Substrate shall be strong, dimensionally stable and free from wide cracks and adhesion-impairing substances (e.g. dust, oil, wax, release agent, efflorescence, laitance, paint, lacquer and varnish residue, old flooring adhesive residue).</p> <p>Sharp arrises shall be chamfered and internal (wall/floor) angles rounded true to line with min. 4 cm radius. Sopro DSF 523 shall only be applied to elements not subject to settlement-related deformation. Any existing cracks in screed shall be filled with Sopro GH 564 casting resin.</p> <p>At wall and floor penetrations, perimeter and movement joints, provision shall be made for necessary incorporation of Sopro DMW 090 sealing collar for walls, Sopro DMB 091 sealing collar for floors, Sopro DB 438 sealing tape, Sopro DBF 638 pre-folded sealing tape and Sopro DE 014/015 sealing tape for internal/external angles.</p> <p>Only ancillary chemical products with a valid test mark, e.g. as concrete admixtures, shall be used for substrate.</p> <p>Pre-wet cementitious substrates so as to ensure that they are slightly damp prior to application of Sopro DSF 523. Single pre-wetting generally suffices for new, unsoiled cementitious substrates.</p>
Priming	<p>Sopro GD 749 primer: Cement screeds, calcium sulphate (anhydrite and self-levelling anhydrite) screeds, board subfloors, paperless gypsum wall panels, gypsum plasterboard/joints and filler, gypsum fibreboard, gypsum plaster, high- or variable-suction (interior) aerated concrete, cement and lime/ cement render, renders made from masonry cement, flush-jointed masonry.</p> <p>Allowance shall be made for approx. 12 hours' flash-off time for gypsum-based substrates pretreated with Sopro GD 749 primer. Please observe guidelines in Sopro GD 749 technical data sheet!</p> <p>Sopro HPS 673 bonding primer: Smooth and closed-pore substrates, e.g. existing tile, terrazzo, natural and cast stone coverings, adhesive residue from PVC flooring or carpeting.</p> <p>Please observe technical product information and test certificates for relevant Sopro primer!</p>
Application	<p>Fill clean container with quantity of water required for application type (see above table for mixing ratio), add Sopro DSF 523 and mix mechanically to homogeneous, lump-free consistency. After 3–5 minutes maturing time, remix thoroughly.</p> <p>Spatula, brush, roller or spray apply two full-cover coats of Sopro DSF 523 (see above table for coat thickness) to slightly damp substrate. Apply second coat only after first coat has achieved adequate strength/walkability and has been inspected for defects.</p> <p>All parts of coated area shall exhibit minimum coat thickness required for specific exposure type. In no place shall dry coat thickness be exceeded by more than 100%. Particular care shall be taken when applying coating at corners, internal/external angles and penetrations.</p> <p>Sopro DSF 523 is suitable for spray application. Use of a Wagner PC 830 PlastCoat spraying unit is recommended.</p> <p>Freshly applied coating shall be protected from direct sunlight, rain and frost for approx. 12 hours. Three-coat application is recommended by Sopro for underwater applications. Upon completion of waterproofing works, trial filling of swimming pool is required. With Sopro DSF 523 membranes, this may be performed after 14 days. Upon completion of trial filling, a three-day waiting time is required after pool is emptied. Dried waterproof membrane shall then be visually inspected and thoroughly cleaned to remove dust and adhesion-impairing deposits or incrustations. After this, tiling may be performed.</p> <p>Where membrane is to receive a cement render coating (e.g. Sopro RAP 2 434 renovation and level-ling render), a tile adhesive (e.g. Sopro's No.1) shall first be combed onto hardened membrane as a pretreatment. This combed-on coating shall be allowed to set for min. 48 hours.</p> <p>Note on bonding at joints: A reactive, two-component Sopro sealing slurry (e.g. Sopro TDS 823 two-component turbo sealing slurry), Sopro FDK 415 fixing and waterproofing adhesive or MS poly-mer-based Sopro sealing adhesive (e.g. Sopro RMK 818 Racofix® universal adhesive) should be used to bond sealing tape and fittings.</p>

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.

Moreover, under DIN 18534, tape and fittings shall always be subsequently overcoated over full surface and beyond edges with waterproof membrane. For Sopro DSF 523, a minimum drying time of 28 days shall be ensured. In case of shorter construction windows or unfavourable weather conditions on site (e.g. cool or damp weather), then only a reactive, two-component Sopro sealing slurry or MS polymer-based Sopro sealing adhesive shall be used.

All suitable Sopro products for standards-compliant application are listed under "Test certificates, test reports and licenses". Please observe technical product information for relevant system products!

Note

Checks on coat thicknesses and drying: Under DIN 18 195 Supplement 2, compliance with coat thickness requirements shall be ensured during application by checking applied quantity per m² and wet coat thickness.

Tools

Finishing trowel, notched spatula, thick/block brush, lambswool roller, electrical screw pump; clean tools with water immediately after use; mechanical cleaning required when set

Specified times

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

Test certificates, test reports and licences

PG-AIV-F: National test certificate (abP) for composite waterproofing systems with membrane and tile finish, for structural waterproofing in conjunction with:

Sealing tape: AEB 148, DB 438, DBF 638;

Sealing tape for angles: AEB 642, AEB 643, DE 014, DE 015;

Sealing collars: AEB 129, AEB 130, AEB 112, AEB 133, AEB 131, AEB 132, AEB 645, DWF 089, DMB 091;

Bonding at side/end joints: RMK 818, MKS 819, WB 588, TDS 823;

Tile adhesives: Sopro's No.1 (order no. 400), Sopro's No.1 Silver (order no. 403), Sopro's No.1 rapid-set (order no. 404), Sopro's No.1 white (order no. 996), Sopro's No.1 white rapid-set (order no. 997), FKM XL 444, FKM 600, VF XL 413, VF 419, VF HF 420, MEG 665, MEG 666, MEG 667, MG 679, FF 450, FF 451, M&M 446, SC 810;

Other: WBD 811, WDE 812, WDM 813 and other Sopro system components.

EMICODE system of GEV (German Association for the Control of Emissions in Products for Flooring Installation, Adhesives and Building Materials): EC1^{PLUS} ("very-low-emission-plus") rating

Exempt from labelling requirements under Regulation (EC) No 1272/2008 (CLP). Contains cement.

Exhibits strong alkaline reaction upon contact with moisture/water; protection required for skin and eyes. Rinse with water in case of contact. In case of contact with eyes, also seek medical advice. The product is combustible and may create an explosive atmosphere when mixed with air. Avoid dust formation and electrostatic build-up. All standard precautions for the handling of construction materials/chemicals shall be taken.

Precautionary statements: P102 Keep out of reach of children. P332+P313 If skin irritation occurs: Get medical advice/attention.

EUH210 Safety data sheet available on request.

German Water Hazard Class (WGK): WGK 1: slightly hazardous to water (self-assessment in accordance with VwVwS – German Administrative Regulations on the Classification of Substances Hazardous to Waters into Water Hazard Classes – of 17.05.1999)

GISCODE (German hazardous substances classification): ZP 1 · Low-chromate to Regulation (EC) No 1907/2006, Annex XVII.

Safety precautions

Disposal

Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force.

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

Disposal of hardened product (EC waste code) : 17 01 01

Disposal of not hardened product (EC waste code) : 17 01 01

The suggested European waste code is just based on the composition of the product.

According to the specific process or application field a different waste code may be necessary.

CE marking

 0761	 Sopro Bauchemie GmbH Biebricher Straße 74 – 65203 Wiesbaden (Germany) www.sopro.com
	14 CPR-DE3/0523.1.eng EN 14 891:2013 Sopro DSF 523
Liquid-applied water impermeable product, based on polymer-modified cementitious mortar (CM), for application below ceramic tiling on outdoor walls and floors, and in swimming pools (bonded with C2 adhesive in accordance with EN 12 004)	
Initial tensile adhesion strength Tensile adhesion strength after water contact Tensile adhesion strength after heat aging Tensile adhesion strength after contact with lime water Tensile adhesion strength after freeze-thaw cycles Water impermeability Crack bridging ability under standard conditions Release of dangerous substances	≥ 0.5 N/mm ² ≥ 0.5 N/mm ² ≥ 0.5 N/mm ² ≥ 0.5 N/mm ² ≥ 0.5 N/mm ² no penetration ≥ 0.75 mm see SDS

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