

smet

Sopro TDS 823

Two-component turbo sealing slurry



High-performance, flexible, rapid-set, two-component, cementitious mineral sealing slurry used to produce crack-bridging waterproof coatings. For waterproofing normal, recessed and access balconies to DIN 18 531 Part 5, for waterproofing elements in contact with soil to DIN 18 533 Part 3, for waterproofing indoor spaces to DIN 18 534 Part 3, and for waterproofing tanks and pools to DIN 18 535 Part 3.

- For walls and floors, indoors and outdoors
- Rapid-set (approx. 2 hours per coat), particularly suitable for cold season
- Rainproof after only approx. 2 hours
- Withstands 3 bar water pressure after only 6 hours
- Highly flexible, crack-bridging after only 6 hours
- For balconies and patios
- For damp and wet spaces
- For tanks and pools
- For elements in contact with soil
- Creamy consistency allows smooth application
- Vapour-permeable, fibre-reinforced, offering low-temperature flexibility
- For brush, roller, trowel and spray application
- Certified low-temperature flexibility down to -20°C: Class CM02P to DIN EN 14891
- 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).

Long-term protection of elements in contact with soil (e.g. external basement walls) to DIN 18533 Part 3 for following applications: W1-E1) "Ground moisture and water without hydrostatic pressure", W2.1-E2) "Moderate water pressure action", W3-E2) "Water without hydrostatic pressure acting on buried suspended slabs" and W4-E1) "Splash water acting on plinths and capillary water in and below buried walls". Also suitable as contact layer on existing bitumen and tar pitch waterproofings prior to application of Sopro waterproof bitumen coatings. For waterproofing normal, recessed and access balconies to DIN 18531 Part 5.

Also suitable for waterproof bonding of joints between Sopro AEB products and laps between Sopro waterproof sheet membranes, Sopro sealing tape and Sopro fittings.

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 powder Component A : 10 kg liquid Component B (1 : 1 by weight)
4.5 kg powder Component A : 4.5 kg liquid Component B (1 : 1 by weight)

¹⁾ Crack class R1-E and space use classes RN1-E to RN2-E.
Crack class R2-E substrates as special construction.

²⁾ As special construction

**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 to W3-I	2.0 mm	2.6 mm	1.2 kg/m ²
W1-B to W2-B	2.0 mm	2.6 mm	1.2 kg/m ²
W1-E, W2.1-E, W3-E, W4-E	2.0 mm	2.6 mm	1.2 kg/m ²
DIN 18531 Part 5	2.0 mm	2.6 mm	1.2 kg/m ²
Bonding AEB 640/AB 978 joints (5 cm)	–	–	70–100 g/m
Bonding Sopro AEB 641	–	–	180–240 g/m

In compliance with good practice, 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, minimum dry coat thickness d_{min} must be ensured by adding a (calculated) thickness supplement equal to at least 25 % of d_{min} . Additional consumption for a 25 % thickness supplement is given as consumption for required minimum dry coat thickness $d_{min} \times 0.25$.

Working life

30–40 minutes; stiffened membrane shall not be retempered by addition of water or fresh mix to restore workability.

Drying time/rainproof

Approx. 2 hours per coat

Ideal application temperature

Between +5 °C and +25 °C

Walkable

After 2–3 hours

Resistant to water pressure

After approx. 2 days

Shelf life

Subject to storage on pallet in dry, frost-free conditions in original unopened containers:

Component A (powder): Approx. 12 months

Component B (liquid): Approx. 12 months

Do not store liquid component at temperatures above +30 °C.

Packaging

10 kg bag (powder Component A) and 10 kg canister (liquid Component B)
4.5 kg bag (powder Component A) and 4.5 kg canister (liquid Component B)
9 kg combi pack
20 kg combi pack

Substrate preparation

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). Sharp arrises shall be chamfered and internal (wall/floor) angles rounded true to line with min. 4 cm radius. Sopro TDS 823 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.

Provision shall be made for necessary incorporation of Sopro DMW 090 sealing collar for walls, Sopro DMB 091 sealing collar for floors and Sopro DB 438 sealing tape at wall and floor penetrations, perimeter and movement joints. Use of Sopro TDS 823 is recommended for waterproof bonding at laps between Sopro sealing tapes and with sealing tapes for internal/external angles.

Where no primer is used, adequately pre-wet cementitious substrates to ensure that they are slightly damp prior to application of Sopro TDS 823. Single pre-wetting generally suffices for new, unsoiled cementitious substrates.

Priming

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, masonry cement, flush-jointed masonry.

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.

Please observe technical product information and test certificates for relevant Sopro primer!

Application

Fill clean container with liquid Component B, add powder Component A and mix mechanically until a homogeneous, workable, lump-free consistency is achieved. Ensure exact compliance with mixing ratio of 1:1 parts by weight. To achieve good rolling consistency, up to max. 200 ml (equivalent to 2%) water may be added per 10 kg liquid Component B (or up to 90 ml water per 4.5 kg liquid Component B). After 3–5 minutes maturing time, remix thoroughly.

Spatula, brush, roller or spray apply two full-cover coats of Sopro TDS 823 (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.

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.

Sopro TDS 823 is suitable for spray application. Use of a Wagner PC 830 PlastCoat spraying unit is recommended.

Freshly applied coating shall be protected from direct sunlight, rain and frost for approx. 2 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 TDS 823 membranes, this may be performed after 2 days. Upon completion of trial filling, a 24-hour 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.

Where membrane is to receive a cement render coating (e.g. Sopro RAP 2 434 renovation and leveling render), a tile adhesive (e.g. Sopro's No.1 400) shall first be combed onto hardened membrane as a pretreatment. This combed-on coating shall be allowed to set for min. 48 hours.

Special guidance

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, lambswool roller, thick/block brush; 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 and licences

PG-AIV-F (Criteria for Award of National Test Certificates for Liquid-Applied Waterproof Membranes Used in Conjunction with Tile Coverings):

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

Sealing tape: AEB 148, AEB 1176, 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, DWF 089, DMB 091

Tile adhesives: Sopro's No.1 (order no. 400), Sopro's No.1 rapid-set (order no. 404), FKM XL 444, FKM 600, VF 419, VF XL 413, VF HF 420, MEG 665, MEG 666, MEG 679, FF 450

Other: WDB 811, WDE 812, WDM 813

PG-AIV-B (Criteria for Award of National Test Certificates for Waterproof Sheet Membranes Used in Conjunction with Tile Coverings):

National test certificate (abP) for composite waterproofing systems with membrane and tile finish, for structural waterproofing in conjunction with AEB 640, AEB plus 639, AEB HD 958 and other Sopro components

PG-MDS (Criteria for Award of National Test Certificates for Mineral Sealing Slurries for Structural Waterproofing):

National test certificate (abP) for use as mineral sealing slurry, for structural waterproofing in conjunction with:

Sealing tape: AEB 148, DB 438, DBF 638, FDB 524

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, DWF 089, DMB 091

Primer: GD 749

DIN EN 14 891:

In conjunction with suitable Sopro tile adhesives and Sopro GD 749 primer – Class CM02P (crack-bridging ability at very low temperatures (-20°C) and resistant to contact with chlorinated water).

DIN 4030-1:

Test for water impermeability after 3-month storage in water heavily aggressive to concrete (Exposure Class XA2) at 40 °C

Test for water impermeability after 3-month storage in water heavily aggressive to concrete (Exposure Class XA2) at 40 °C in conjunction with:

Tile adhesives: MEG 667

Tile grout: TF+ 592 grey

Rear-face water exposure to WTA (International Association for Science and Technology of Building Maintenance and Monuments Preservation) guidance paper 4 – 6:

Meets requirement in terms of water impermeability test at 0.75 bar.

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

Application of Sopro TDS 823 two-component turbo sealing slurry on balconies and patios



1 Clean properly prepared, level substrate.



2 Pour liquid component of Sopro TDS 823 into clean bucket.



3 Add powder component of Sopro TDS 823.



4 In outdoor areas, pre-wet substrate for subsequent application of Sopro TDS 823. In indoor areas, pretreat substrate with Sopro GD 749 primer.



5 Thoroughly mix two components ...



6 ... until creamy, homogeneous, workable consistency is achieved.



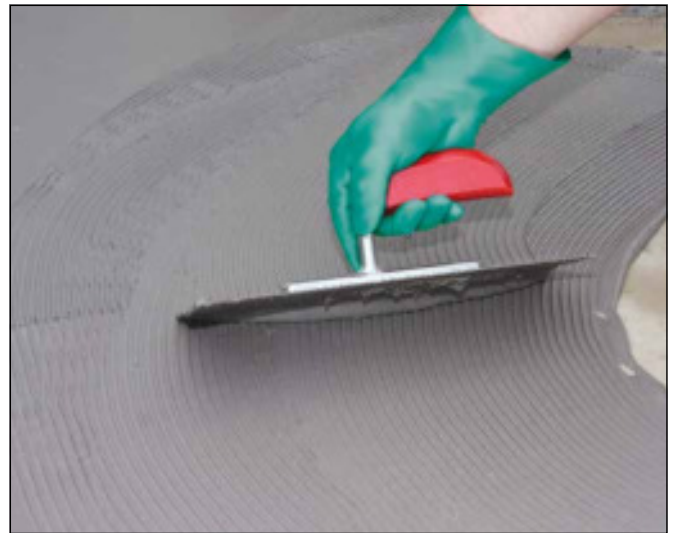
7 Coat area of wall junctions with Sopro TDS 823 to allow ...



8 ... subsequent placing and fixing of Sopro DB 438 sealing tape. Ensure that tape is firmly pressed down.



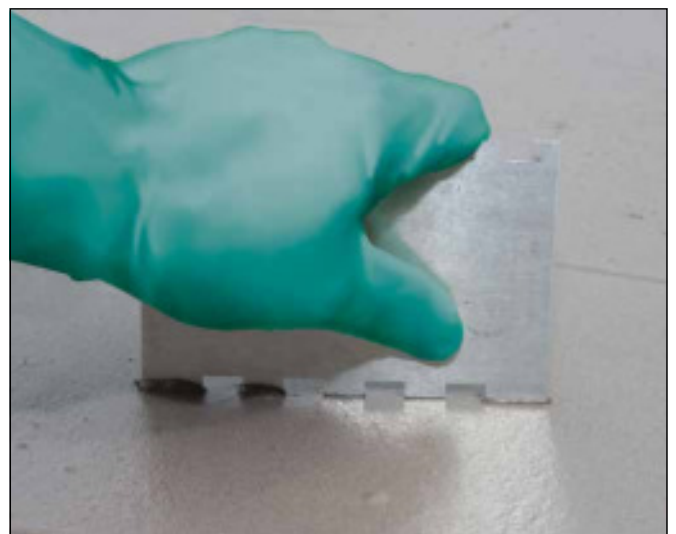
9 Overcoat edges of Sopro DB 438 sealing tape with Sopro TDS 823.



10 Apply Sopro TDS 823 to dampened or primed substrate using 4 mm notched spatula.



11 Smooth down Sopro TDS 823 with finishing trowel.



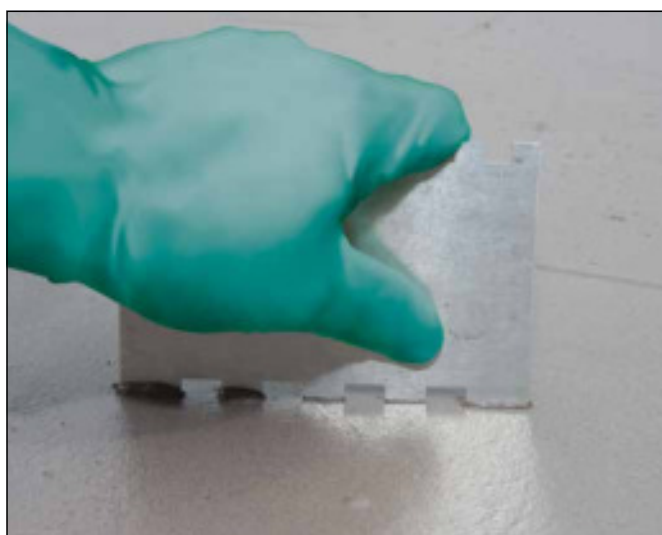
12 Check for wet coat thickness of 1.3 mm using special gauge.



13 Sopro TDS 823 can also be applied using a lambswool roller.



14 Apply second coat when first waterproofing coat has fully dried (after only 2 hours) ...



15 ... and again check for wet coat thickness of 1.3 mm.



16 Apply two-component Sopro MEG 665 megaFlex S2 or Sopro MEG 666 megaFlex S2 turbo highly flexible tile adhesive to fully cured waterproof membrane.



17 Use of buttering/floating method to achieve fullest possible bedding and bonding of covering depends on tile size and nature of rear face.



18 Place tiles in freshly placed adhesive bed and align.



19 Apply Sopro flexible adhesive (e.g. Sopro's No.1 400 or Sopro FKM XL 444) to rear face of cut-to-size skirting tiles ...



20 ... and place tiles in position.



21 After Sopro flexible adhesive has set, finish joints using Sopro tile grout (e.g. Sopro DF 10 flexible designer tile grout or Sopro FL flexible tile grout).



22 Allow adequate drying time for applied Sopro grout, then wash down tiled surface.



23 Apply Sopro Sanitary Silicone sealant at perimeter and movement joints.



24 Fresh balcony tiling installed using Sopro system components.

Safety precautions

Component A (powder):

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): ZP 1 - Low-chromate to Regulation (EC) No 1907/2006, Annex XVII.

Component B (liquid):

Safety precautions Not hazardous under Regulation (EC) No 1272/2008 (CLP). All standard precautions for the handling of construction materials/chemicals shall be taken. EUH208 Contains biocidal products: 1,2-benzisothiazol-3(2H)-one; mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1). May produce an allergic reaction. EUH210 Safety data sheet available on request. P102 Keep out of reach of children.

GISCODE (German hazardous substances classification): M-GP01

Disposal

Waste treatment methods

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.

CE marking

 0761	 Sopro Bauchemie GmbH Biebricher Straße 74 – 65203 Wiesbaden (Germany) www.sopro.com
	14 CPR-DE3/0823.1.eng EN 14891:2013 Sopro TDS 823 Liquid-applied, water-impermeable product comprising polymer-modified cement mortar (CM) for application below ceramic tiling on outdoor walls and floors, and in swimming pools (bonded with C2-grade adhesive to EN 12004)
Initial tensile adhesion strength Tensile adhesion strength after water contact Tensile adhesion strength after heat ageing Tensile adhesion strength after contact with lime water Tensile adhesion strength after freeze-thaw cycle 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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