

Order-No.

**618**

# Sopro ZR 618

## Rapid-drying, reactive, two-component, cementitious waterproof membrane

**extra Light!**  
exceptionally high coverage

Flexible, high-coverage, rapid-drying, reactive, two-component, cementitious waterproof membrane. For waterproofing elements in contact with soil to DIN 18533 Part 3 and for waterproofing tanks to DIN 18535 Part 3 (formerly DIBT Construction Products List and ZDB data sheet).

- Rainproof after only approx. 3 hours
- Highly flexible, crack-bridging after only approx. 6 hours
- Withstands 2.5 bar water pressure after only approx. 6 hours
- Backfilling possible after only approx. 6 hours
- Also suitable for application to cold and slightly damp substrates
- For installation of stepped and L-shaped damp-proof courses in cavity walls
- Water-vapour-permeable, UV-resistant, overcoatable and suitable as plastering/rendering background
- Visual drying control through colour change
- For brush, roller, trowel and spray application
- For walls and floors, indoors and outdoors
- Low-chromate to Regulation (EC) No 1907/2006, Annex XVII.

### Use

Long-term protection of elements in contact with soil to DIN 18533 Part 3 for following applications: W1-E<sup>1)</sup> "Ground moisture and water without hydrostatic pressure", W2.1-E<sup>1,2)</sup> "Moderate water pressure action", W3-E<sup>1,2)</sup> "Water without hydrostatic pressure acting on buried suspended slabs" and W4-E<sup>1)</sup> "Splash water acting on plinths and capillary water in and below buried walls". For waterproofing external basement walls, applied to existing bitumen waterproofings and tar coatings, as horizontal damp-proof membrane on ground slabs, as horizontal damp-proof course, as negative-side (internal) membrane, for bonding of insulation and protective boards, for bonding and sealing at light well junctions. For installation of waterproof membranes in tanks to DIN 18535 Part 3, for W1-B and W2-B<sup>3)</sup> "Up to 10 m water head" applications (formerly Moisture Exposure Class B to Construction Products List). For waterproofing process water tanks, fountains and planters, and in landscape architecture.

### Suitable substrates

Concrete, lightweight concrete; foundations; existing bitumen waterproofings; ground slabs; cement and lime/cement renders, renders made from masonry cement, plane, flush-jointed masonry built from clay units, calcium silicate units, slag blocks and cellular blocks; aerated concrete; composite masonry; smooth off-form concrete surfaces.

### Mixing ratio

10 kg powder Component A : 10 kg liquid Component B

### Coat thickness / consumption rate

Coat thicknesses after 2-coat application to DIN 18533 Part 3 and DIN 18535 Part 3:

Water action classes	Min. dry coat thickness	Min. wet coat thickness	Consumption rate per mm dry coat thickness
W1-E, W2.1-E, W3-E, W4-E	2 mm	2.2 mm	1.2 kg/m <sup>2</sup>
W1-B to W2-B	2 mm	2.2 mm	1.2 kg/m <sup>2</sup>
Skim coat	–	–	1–2 ltr/m <sup>2</sup>
Bonding of insulation and drainage boards	–	–	1–2 ltr/m <sup>2</sup>

Under DIN 18533 Part 3 and DIN 18535 Part 3, reactive cementitious waterproof membrane shall be applied in at least two coats.

<sup>1)</sup> Crack class R1-E and space use classes RN1-E to RN2-E

<sup>2)</sup> As special construction

<sup>3)</sup> Not suitable for swimming pools. Only suitable for containers, not for composite (membrane plus tile finish) waterproofings

<b>Coat thickness/ consumption rate</b>	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 18533 Part 3 and DIN 18535 Part 3, an extra coat thickness of 25 % is required for wet coat thickness. In no place shall applied material fail to achieve required dry coat thickness.
<b>Rain resistance</b>	Approx. 3 hours per coat
<b>Backfilling</b>	After approx. 6 hours
<b>Resistance to water pressure</b>	2.5 bar after approx. 6 hours
<b>Working life</b>	Approx. 40 min
<b>Application temperature</b>	From +5 °C to approx. +25 °C (substrate, air, material)
<b>Shelf life</b>	6 months, subject to storage on pallet in dry, frost-free conditions in original unopened containers. Protect liquid component from frost.
<b>Packaging</b>	20 kg combi pack, 9 kg combi pack
<b>Substrate preparation</b>	<p>Substrate preparation shall comply with DIN 18533 Part 3 or DIN 18535 Part 3 (formerly DIN 18 195). Substrate shall be strong, dimensionally stable and free from wide cracks and adhesion-improving substances. Adequately pre-wet cementitious substrates to ensure that they are slightly damp when coating is applied. High-suction substrates should be pretreated with Sopro GD 749 primer. All relevant guidelines, recommendations and good-practice codes shall apply.</p> <p>As structural waterproofing/tanking membrane: Open end joints and joints/hollows (e.g. in masonry, cellular brickwork/blockwork) up to 5 mm may be levelled out by means of Sopro ZR 618 skim coat. Fill joints <math>\geq 5</math> mm using Sopro RAM 3 454 renovation and levelling mortar. Substrate shall be free from any adhesion-improving substances, e.g. oil, grease, dust or release agent residue. Masonry surfaces shall be flush-jointed. Arrises and internal angles shall be rounded (4–6 cm radius). Hack away projecting mortar residue and even out any fins or sharp irregularities.</p> <p>When repairing existing waterproof bitumen coatings, start by applying Sopro ZR 618 skim coat. When this has fully dried, apply membrane in at least two coats of Sopro ZR 618.</p> <p>Installation of waterproof membranes shall comply with DIN 18533 Part 3 or DIN 18535 Part 3 (formerly DIN 18 195).</p>
<b>Application</b>	<p>Place liquid Component B in container, add powder Component A and mix with stirrer to homogeneous, workable, lump-free consistency. Liquid and powder components are supplied in correct proportions. Briefly restir after 3 – 5 minutes maturing time.</p> <p>Brush, roller, trowel or spray apply membrane in at least two coats to slightly damp or primed substrate. Apply second coat after first coat has properly set.</p> <p>Where bridging structural joints in building fabric, embed Sopro KDB 756 waterproofing strip for basements in first membrane coat and overcoat with second coat to a width of 5 cm on either side. At internal angles, please note that it is necessary to install Sopro DB 438 sealing tape, Sopro DBF 638 pre-folded sealing tape and Sopro DE 014/015 sealing tape for internal/external angles or Sopro AEB 641 sealing tape/Sopro AEB 148 flexible sealing tape and Sopro AEB 642/643 sealing tape for internal/external angles.</p> <p>Sopro ZR 618 is also suitable for roller and spray application and may be applied using industry-standard bitumen spray equipment. Use of e.g. Wagner HC 960 G airless pump, Desoi SP-Y screw pump, Inomat M8 feed pump, b &amp; m BMP 6 screw pump and High Tech HighPumpM8 or HighPumpSmall pump is recommended. If necessary, add approx. 2% water for roller and approx. 4% water for spray application.</p> <p>Sopro ZR 618 is overcoatable and suitable as plastering/rendering background. To overcoat larger areas (<math>&gt; 1</math> m<sup>2</sup>), first comb on skim coat to fully dried waterproof membrane with a Sopro flexible tile adhesive (e.g. Sopro's No.1). When crests of coat have set, surface can be overcoated with Sopro RAP 2 434 renovation and levelling render or renders of mortar groups P II or P III to DIN 18550 (depending on application and manufacturer's specifications). Smaller areas (<math>&lt; 1</math> m<sup>2</sup>) can also be overcoated without prior application of a skim coat.</p>

## Specified times

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

## Tools

Finishing trowel, roller, block brush, suitable spray equipment

## Test certificates and test reports

**Test certificate issued by Technische Universität München:**

– National test certificate (abP) under PG-MDS criteria for use of mineral sealing slurries for structural water-proofing to DIBt (German Institute for Construction Technology) Construction Products List A, Part 2, No. 2.49 in conjunction with Sopro DB 438, Sopro DBF 638, Sopro AEB 148, Sopro AEB 641, Sopro DE 014/015, Sopro AEB 642/643, Sopro AEB 644/645, Sopro DMW 090, Sopro DMB 091, Sopro AEB 112/129–133, Sopro GD 749

**SFV e.V. institute for wall/floor coverings, Großburgwedel:**

– Test report: Meets PG-AIV-B (Criteria for Award of National Test Certificates for Waterproof Sheet Membranes Used in Conjunction with Tile Coverings) requirements for behaviour after accelerated weathering (UV resistance)

## 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):** Exempt from labelling requirements under Regulation (EC) No 1272/2008 (CLP).

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. P501 Dispose of contents/container at hazardous or special waste collection point.

**GISCODE (German hazardous substances classification):** M-GP01

## Disposal Considerations

### Component A Disposal considerations

#### 13.1. 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.

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.

### Component B Disposal considerations

#### 13.1. 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.

bringing european innovation

# smet

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