



Sopro VF 419

VarioFlex® Silver large-format flexible tile adhesive



Silver-grey, highly flexible, high-coverage, extra-rapid-set, cementitious thin-, medium- and floating-bed tile adhesive for efficient laying of tiles and discoloration-sensitive natural stone units with full rear-face wetting using floating method. Particularly suitable for large-format units, also on calcium sulphate screeds. With high crystalline water binding capacity. Low-chromate to Regulation (EC) No 1907/2006, Annex XVII.

- Early high strength, walkable and groutable after only approx. 3 hours
- Silver-grey adhesive colour, also suitable for light-coloured, translucent natural stone types
- For deformation-sensitive tiles
- For large-format units
- Extended open time \geq 30 minutes
- Ideal for use in conjunction with tile levelling systems
- Consistency adjustable for thin-, medium- and floating-bed laying
- For floors, indoors and outdoors
- EMICODE system of GEV (German Association for the Control of Emissions in Products for Flooring Installation, Adhesives and Building Materials): ECT1^{PLUS} ("very-low-emission-plus") rating
- DGNB (German Sustainable Building Council): Top quality level 4, Line 8¹⁾

Stoneware and fully vitrified stoneware tiles, clinker floor tiles, mosaic, light-coloured, discoloration-sensitive and translucent natural stone units, cast stone units, terracotta, dishing-prone, resin-bonded tiles, e.g. agglomerate tiles. Particularly suitable for large-format fully vitrified stoneware units.

For fast-track refurbishment/renovation on tightly scheduled projects.

For use in private housing as well as in commercial and industrial facilities subject to high mechanical loads.

Concrete, min. 3 months old; cement screeds; calcium sulphate screeds; mastic asphalt screeds (indoors); board subfloors; heated floor constructions (cement and anhydrite screeds); strong existing ceramic, natural stone, terrazzo and cast stone coverings. Waterproof membranes using Sopro FDF flexible sealing compound, Sopro DSF 523 one-component flexible sealing slurry, Sopro DSF 623 one-component flexible rapid-set sealing slurry, Sopro DSF 423 two-component flexible sealing slurry or Sopro TDS 823 two-component turbo sealing slurry.

Thin-bed adhesive:	5.5–6.0 ltr water : 25 kg Sopro VF 419
Medium-bed adhesive:	5.0–5.5 ltr water : 25 kg Sopro VF 419
Floating-bed adhesive:	6.5–7.5 ltr water : 25 kg Sopro VF 419

3–5 minutes

30–45 minutes depending on consistency; stiffened mortar shall not be retempered by addition of water or fresh mortar to restore workability.

After approx. 3 hours or after setting of adhesive; take measures to spread loads over floor.

After approx. 5 hours; in commercial facilities after approx. 2 days, in areas subject to high wet exposure after approx. 3 days, for underwater applications after approx. 10 days, in conjunction with floor heating after approx. 14 days

Between +5 °C and +25 °C

Approx. 1.3 kg/m² per mm coat thickness

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

25 kg bag

Use

Suitable substrates

Mixing ratio

Maturing time

Working life

Walkable/groutable

Loadable

Application temperature

Coverage

Shelf life

Packaging

¹⁾ See TKB (German Technical Committee for Construction Adhesives) data sheet 14 "Rapid-hardening cementitious screeds and cementitious screeds with screed admixtures" issued on 11 August 2015 by Industrierverband Klebstoffe e.V. (German Adhesives Industry Association).

²⁾ Based on DGNB (German Sustainable Building Council) criterion "ENV1.2 Local Environmental Impact" (version 2015).

Properties

Silver-grey, highly flexible, high-coverage, extra-rapid-set, highly polymer-modified, cementitious thin-, medium- and floating-bed tile adhesive meeting C2 EF S1 requirements to DIN EN 12004, with original Rhenish trass. For installation of ceramic floor coverings, in particular for discoloration-sensitive and/or translucent natural stone tiles, on all substrates. Suitable for large-format fully vitrified stoneware.

Ideal for large-format fully vitrified stoneware due to its rapid-set properties in conjunction with a nonetheless long open time. Rapid-set properties make it ideal for fast-track or tightly scheduled projects where rapid reuse of floorspace is required. With high crystalline water binding capacity.

Substrate preparation

Substrate shall be clean, solid, strong, dimensionally stable and free from any adhesion-impairing substances. Fill any existing cracks in screed with structurally bonding Sopro GH 564 casting resin. Level out any gross irregularities using Sopro FS 15 550 floor-levelling compound or Sopro FAS 551 fibre-reinforced self-levelling filler. On balconies and patios, use Sopro RAM 3 454 renovation and levelling mortar to create falls (where absent) and waterproof as required (e.g. using Sopro TDS 823 two-component turbo sealing slurry, Sopro DSF 523 one-component flexible sealing slurry or Sopro AEB plus 639 waterproofing and separating membrane).

Cement screeds shall be 28 days old and dry. Screeds incorporating Sopro Rapidur® B1 rapid-set binder are ready to receive tiles after only 12 hours. Calcium sulphate (anhydrite and self-levelling anhydrite) screeds shall exhibit a moisture content $\leq 0.5\%$ CM and be adequately ground, vacuum-cleaned and primed. Mastic asphalt screeds shall be blinded with sand.

Cement and calcium sulphate screeds incorporating heating elements shall be heated up to ensure adequate drying out prior to flooring installation: required moisture content for cement screeds $\leq 2.0\%$ CM, for calcium sulphate screeds $\leq 0.3\%$ CM. Gypsum plasterwork shall be dry, single-coat and shall not be felt-floated or smoothed.

All relevant standards, guidelines and recommendations shall apply; workmanship shall comply with good practice.

Priming

Sopro GD 749 primer: High- or variable-suction substrates; cement screeds, calcium sulphate (anhydrite and self-levelling anhydrite) screeds for tile formats $< 1.0 \text{ m}^2$, board subfloors

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; mastic asphalt screeds without sand blinding

Sopro MGR 637 multi-purpose primer/Sopro EPG 522 epoxy primer: Calcium sulphate (anhydrite and self-levelling anhydrite) screeds for tile formats $\geq 1.0 \text{ m}^2$

Without primer: Sufficiently strong concrete; solid, uniformly absorbent mineral substrates

Application

Depending on required consistency, fill clean container with 5.5–6.0 ltr (thin-bed adhesive), 5.0–5.5 ltr (medium-bed adhesive) or 6.5–7.5 ltr (floating-bed adhesive) water, add 25 kg Sopro VF 419 and mix mechanically using mixing attachment to achieve lump-free consistency. After 3–5 minutes maturing time, remix thoroughly.

Apply contact layer with finishing trowel, then apply combed bed with suitable notched trowel (tool angle 60°). Apply only as much adhesive as can be covered by tiles during open time. Press tiles firmly into adhesive bed, position and align. Rake out joints prior to hardening and wash down covering. Use buttering/floating method for laying large-format units.

Note

Particularly when using tile levelling systems, adopt buttering/floating method for laying large-format units. When using tile levelling systems, substrate shall be properly level and suitably pretreated.

Specified times

Apply for normal temperature range of $+23^\circ\text{C}$ and 50 % relative humidity; higher temperatures shorten and lower temperatures lengthen these times.

Tools/tool cleaning

Mixing attachment, notched trowel with suitable serration, medium-bed trowel; tile levelling systems, e.g. manufactured by Karl Dahm; wash tools with water immediately after use.

Test certificates, test reports and licences

C2 EF S1 to DIN EN 12004

National test certificate (abP) based on system test under PG-AIV-B (Criteria for Award of National Test Certificates for Waterproof Sheet Membranes Used in Conjunction with Tile Coverings) for sheet membranes: combinations featuring Sopro AEB 640, Sopro AEB 641, Sopro AEB 642/643, Sopro AEB 644/645, Sopro AEB 112/129 – 133, Sopro DWF 089 with Sopro VF 419 as tile adhesive and Sopro RMK 818, Sopro MKS 819 or Sopro TDS 823 as adhesive and sealing product at laps.

National test certificate (abP) based on system test under PG-AIV-F (Criteria for Award of National Test Certificates for Liquid-Applied Waterproof Membranes Used in Conjunction with Tile Coverings) for use with Sopro FDF 525/527 and other Sopro components.

GEV-EMICODE EC1^{PLUS} (“very-low-emission-plus”) rating

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: 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

Disposal

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

CE marking

 1119 0767	 Sopro Sopro Bauchemie GmbH Biebricher Straße 74 – 65203 Wiesbaden (Germany) www.sopro.com
	16 CPR-DE3/419-25.2.eng EN 12004:2007 + A1:2012 Sopro VF 419-25 Improved, fast setting, cementitious adhesive for tiling internal and external floors
Reaction to fire	Class A2 _{fl} -s1
Bond strength as:	
Early tensile adhesion strength	≥ 0.5 N/mm ²
Initial tensile adhesion strength	≥ 1.0 N/mm ²
Durability for:	
Tensile adhesion strength after water immersion	≥ 1.0 N/mm ²
Tensile adhesion strength after heat ageing	≥ 1.0 N/mm ²
Tensile adhesion strength after freeze-thaw cycles	≥ 1.0 N/mm ²
Release of dangerous substances	see SDS

bringing european innovation

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