June 2026

VarioFlex® high-strength flexible tile adhesive

Flexible adhesive

VF 420

Extra-rapid-set, early-high-strength, cementitious flexible floating-bed tile adhesive, meeting C2 FE requirements to DINEN12004. Ideal for fast-track or tightly scheduled schemes. For trouble-free laying of dishing/curling-prone resin-bonded tiles, large-format units, cast stone units, earthenware, stoneware and fully vitrified stoneware tiles. Suitable for use in conjunction with floor heating and waterproof membranes. High reliability through full rear-face wetting and contact adhesion plus high crystalline water binding capacity.

- For floors, indoors and outdoors
- C2: tensile adhesion strength ≥ 1.0 N/mm²
- F: early tensile adhesion strength ≥ 0.5 N/mm² a. er 6 hours
- E: extended open time ≥ 30 minutes
- Sopro VF HF 420 achieves 0.5 N/mm² after only 90 minutes; 1.0 N/mm² after only 3 hours
- Walkable and groutable: after approx. 2 hours
- Fully loadable: after approx. 5 hours
- Low-chromate to Regulation (EC) No 1907/2006, Annex XVII

Coverage: Approx. 1.4 kg / m² / mm

Order nr.	Delivery form	Pcs./pal.	kg/pal.
7742025	Bag 25 kg	40	1.000 kg

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 SH 649 shaken resin. Level out any gross irregularities using Sopro RAM 3 454 renovation and levelling mortar or Sopro RS462 repair filler; for floors, use Sopro FS 15 550 floor-levelling compound, Sopro VS 582 self-levelling filler or Sopro FS 5 549 floor-levelling compound. Cement screeds shall be 28 days old and dry. Screeds incorporating Sopro Rapidur® B1 rapid-set screed binder are ready to receive tiles after only 12 hours, Sopro Rapidur® B3 after 1 - 2 days, and Sopro Rapidur® B5 after 3 days.
Calcium sulphate (anhydrite and self-levelling anhydrite) screeds shall be adequately ground, vacuum-cleaned and primed, and shall exhibit moisture content ≤ 0.5%CM for unheated and ≤ 0.3%CM for heated constructions. Gypsum plasterwork shall be dry, single-coat and shall not be felt-floated or smoothed. Cement and calcium sulphate screeds incorporating heating elements shall be heated up to ensure adequate drying out prior to flooring installation. Here, cement screeds shall exhibit residual moisture ≤ 2.0%CM. All relevant standards, guidelines and recommendations shall apply; workmanship shall comply with good practice.

Primer

For high- and variable-suction substrates: Sopro GD 749 primer and Sopro SG 602 primer-sealer

For non-absorbent substrates: Sopro HPS 673 bonding primer

For calcium sulphate screeds: Sopro MGR 637 multi-purpose primer (for all sizes), Sopro GD 749 primer (sizes up to 0.2 m^2), Sopro SG 602 primer-sealer (sizes up to 1.0 m^2)

For stabilizing friable mineral substrates and as adhesion promoter on smooth substrates: Sopro EPG 1522 epoxy primer

For further information, please consult relevant technical data sheets.

Water demand

Per package	25 kg
Water requirement	5,5 l - 6 l

Walkable / Groutable

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

Loadable

After approx. 5 hours; in commercial facilities after approx. 48 hours, in wet spaces after approx. 3 days, for underwater applications after approx. 10 days, with floor heating after approx. 7 days

GEV Emicode

EC1PLUS very low emissionPLUS

Maturation time

3 - 5 minutes

Open Time

Approx. 30 minutes

Underwater And Permanently Underwater Area

Suitable (for castors to EN 12529) upwards of min. 2 mm coat thickness

Application Temperature

Application temperature between +5 °C and max. +25 °C

Working Life

3 – 4 hours; stiffened mortar shall not be retempered by addition of water or fresh mortar to restore workability

Recommendation for grouting	The following are recommended for grouting ceramic tiles with absorbent tile bodies (earthenware) for stated joint widths: from 1 to 5 mm – Sopro Saphir® 5 water-repellent tile grout from 1 to 10 mm – Sopro DF 10 flexible designer tile grout The following are recommended for grouting tiles with low-suction or non-absorbent tile bodies (stoneware and fully vitrified stoneware) for stated joint widths: from 1 to 10 mm – Sopro DF 10 flexible designer tile grout from 2 to 20 mm – Sopro FL plus flexible tile grout The following are recommended for grouting natural and cast stone coverings for stated joint widths: from 1 to 10 mm – Sopro DF 10 flexible designer tile grout from 2 to 20 mm – Sopro FL plus flexible tile grout The following are recommended for grouting coverings subject to high mechanical loads (workshops, commercial facilities) for stated joint widths: from 1 to 10 mm – Sopro TF+ high-strength tile grout from 3 to 30 mm – Sopro TFb high-strength tile grout The following are recommended as chemical-resistant tile grouts for stated joint widths: from 1 to 10 mm – Sopro DFX designer epoxy tile grout from 1.5 to 12 mm – Sopro FEP epoxy tile grout
Wall and floor heating	Suitable
Tools	Mixing attachment, notched trowel with suitable serration (tooth size up to 12mm).
Tool Cleaning	Wash tools with water immediately after use
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	DIN EN 12004: C2 FE DIN EN 14891: VF HF 420 in conjunction with DSF 523, TDS 823 and GD 749 meets requirements, including those for tensile adhesion strength after storage in chlorinated water DIN EN 14891: VF HF 420 in conjunction with PU-FD 1570/1571 and EPG 1522 meets requirements, including those for tensile adhesion strength after storage in chlorinated water PG-AIV-F (Criteria for Award of National Test Certificates for Liquid-Applied Waterproof Membranes Used in Conjunction with Tile Coverings): System component for national test certificate (abP) based on system test in conjunction with DSF 523, TDS 823, ZR 618 (in preparation), FDF 525/527, PU-FD 1570/1571 and other Sopro components PG-AIV-B (Criteria for Award of National Test Certificates for Waterproof Sheet Membranes Used in Conjunction with Tile Coverings): System component for national test certificate (abP) based on system test in conjunction with AEB HD 958 and other Sopro components

Shelf Life	Approx. 6 months (in dry conditions, in original, unopened containers)
Giscode A	ZP1
Safety instructions	Labelling in accordance with Regulation (EC) No 1272/2008 (CLP). GHS05 **Signal word** Danger Causes serious eye damage. Keep out of reach of children. Read label before use. **Contains:** Contains Portlandzement, Cr(VI) <2ppm. German Water Hazard Class: German Water Hazard Class WGK 1 (slightly hazardous to water) GISCODE: ZP1 Low-chromate to Regulation (EC) No 1907/2006, Annex XVII
Disposal	13.1. 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.

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