May 2026

Fliesenfest extra light

S1 flexible tile adhesive

FF 450

Cementitious flexible tile adhesive, meeting C2TE S1 requirements to DIN EN 12004, offering high coverage and excellent workability, for wall and floor installation of ceramic tiles and fully vitrified stoneware, also for underwater applications, e.g. in swimming pools and process water containers. Suitable for use in conjunction with wall and floor heating and waterproof membranes.

- For walls and floors, indoors and outdoors
- C2: tensile adhesion strength ≥ 1.0 N/mm²
- T: thixotropic – high sag resistance due to fibre reinforcement
- E: extended open time ≥ 30 minutes
- S1: Deformability ≥ 2.5 mm
- 3-in-1 formulation: For thin- and floating-bed tilelaying; filler coats of up to 10 mm
- Low-chromate to Regulation (EC) No 1907/2006, Annex XVII

Coverage: Approx. 1.1 kg / m² / mm

Order nr.	Delivery form	Pcs./pal.	kg/pal.
7745083	Big bag 1000 kg	1	1.000 kg
7745079	Big bag 500 kg	1	500 kg
7745025	Bag 25 kg	40	1.000 kg
7745005	Bag 5 kg	200	1.000 kg

Use

Suitable for earthenware, stoneware and fully vitrified stoneware tiles, clinker floor tiles, mosaic, discoloration-resistant natural stone units, cast stone units. In residential, commercial and industrial facilities, catering kitchens, bathrooms, damp and wet spaces, swimming pools, process water containers, on facades, balconies and patios.

Properties

Excellent contact adhesion, high sag resistance and high water retentivity, resistant to water and freeze-thaw cycles, very smooth workability, particularly high coverage, extended open time.

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. Floating cement screeds or unbonded cement screeds on separating layer shall exhibit residual moisture ≤ 2.0%CM. Bonded cement screeds may be tiled as soon as they are walkable. When laying natural stone, risk of discoloration due to moisture penetration must be taken into account. 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.

Application

Place water in clean container, add Sopro FF 450 and mix thoroughly to workable, 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 45° – 60°). Apply only as much adhesive as can be covered by tiles during open time (30 minutes). Press tiles firmly into adhesive bed, position and align. Rake out joints prior to hardening and wash down covering.

Water demand

Per package	5 kg	25 kg	500 kg	1000 kg
Thin bed	1,9 l - 2,1 l	9,5 l - 10,5 l	190 l - 210 l	380 l - 420 l
Floating bed	2,1 l - 2,3 l	10,5 l - 11,5 l	210 l - 230 l	420 l - 460 l
Surface filler	1,7 l - 1,9 l	8,5 l - 9,5 l	170 l - 190 l	340 l - 380 l

Walkable / Groutable

After approx. 12hours or after setting of adhesive; take measures to spread loads over floor

Loadable

After approx. 3days; in commercial facilities after approx. 14days, in areas subject to high wet exposure after approx. 7days, for underwater applications after approx. 21days, in conjunction with wall and floor heating after approx. 14days

BigBag

The following guidance specifically relates to the use of silos and connected mixing systems for rational application.

1. Storage

Sopro big bags shall be stored in original, dry containers and properly protected against moisture and strong sunshine.

2. Silo and mixer set-up

Position silo on suitable, stable base. Install compatible mixer in accordance with manufacturer's specifications.

- Silo recommendation: Capacity of 1,200 ltr or greater, e.g. product manufactured by m-tec.

- Mixer recommendation: MAI®2MIX-LYRA-PICCOLO continuous mixer (requiring 16A power connection. Water connection with GK coupling).

If necessary, please consult manufacturer or Sopro's Technical Service team.

3. Emptying of big bags in silo

Use suitable personal protective equipment (gloves, goggles etc.), particularly when emptying big bags. Before moving a big bag, please ensure lifting straps and seams are undamaged. Also make sure that technical device for emptying containers is suitable and fit for purpose. Lift Sopro big bag using all lifting loops, e.g. with several crane hooks or suitable lifting device. Position Sopro big bag centrally and immediately above emptying point, carefully open discharge spout and empty under close supervision. Under no circumstances shall any operatives stand below a lifted big bag. Please ensure that lifting forks and crane hooks are smooth and rounded, without any sharp edges, as these may cause damage to lifting loops. When a big bag is lifted, make sure that all lifting loops are in a vertical position to prevent any lateral forces from acting. Please also ensure that lifting loops are not twisted during lifting operation.

4. Mechanical mixing

Any mixing plant shall be operated in accordance with manufacturer's specifications. Preliminary tests shall be performed in order to achieve optimum material consistency. Checking of consistency using reference mix prepared with mechanical stirrer is recommended, with necessary adjustments made through water quantity.

5. Application

Once correct material consistency is achieved, application can proceed in usual Sopro quality.

6. Cleaning

Thoroughly clean mixer immediately after use in accordance with manufacturer's specifications.

Suitable Substrates

Min. 3-month-old concrete, lightweight concrete, cement screeds, calcium sulphate (anhydrite and self-levelling anhydrite) screeds, mastic asphalt screeds (indoors), board subfloors, heated floor constructions (cement and calcium sulphate screeds), strong existing ceramic, natural stone, terrazzo or cast stone coverings, paperless gypsum panels, gypsum plasterboard and gypsum fibreboard, flush-jointed masonry (no composite masonry), renders made from masonry cement, cement render, lime/cement render, gypsum plaster and rigid foam board. As a basic requirement, all substrates shall, be solid, strong and dimensionally stable. Specifications of DIN 18157 shall be observed.

	Waterproof membranes using Sopro FDF flexible sealing compound, Sopro DSF 523 one-component flexible sealing slurry, Sopro DSF 623 flexible RS sealing slurry, Sopro DSF 423 two-component flexible sealing slurry, Sopro TDS 823 two-component turbo sealing slurry; Sopro DSF SL 1525, Sopro Boards and Sopro AEB 640/Sopro AEB plus 639 waterproofing and separating membrane.
GEV Emicode	EC1PLUS very low emissionPLUS
Maturation time	3 - 5 minutes
Open Time	Approx. 30 minutes
Underwater And Permanently Underwater Area	Suitable
Application Temperature	Between +5 °C and max. +30 °C; use of a rapid-set Sopro thin-bed adhesive is recommended for external areas during cold season
Working Life	Approx. 4hours; stiffened mortar shall not be retempered by addition of water or fresh mortar to restore workability

Coverage Chart

Serration (mm)	4	6	8	10	12	20
Coverage kg/m²	1.1	1.7	2.2	2.8	3.3	--

All stated consumption/coverage rates depend on angle of application with notched trowel and on substrate type and levelness.

20 mm serration corresponds to M1 serration to TKB (German Technical Committee for Construction Adhesives) guidance paper (U-shaped serration).

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	Available upon request
Shelf Life	Approx. 12 months (in dry conditions, in original, unopened containers)
Giscode A	ZP1
Safety instructions	Labelling in accordance with Regulation (EC) No 1272/2008 (CLP). GHS05 GHS07 **Signal word** Danger Causes skin irritation. Causes serious eye damage. May cause respiratory irritation. 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

Please observe the current version of the product information, the currently valid declaration of performance under the EU Construction Products Regulation, and the latest version of the relevant safety data sheet to EC Regulation No 1907/2006, also available from the Internet at www.sopro.com! This document serves as a product description and sets out general details, based on empirical and test data, that take no account of specific cases of application. No liability may be construed and no claims shall be accepted in respect of these details. Should you require assistance, please contact our Technical Counselling Service.

Disposal

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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