



Sopro PUK 503

PU adhesive



Light-coloured, waterproof, rapid-set, solvent-free, two-component reaction resin adhesive, meeting R2 T requirements to DIN EN 12004, for installation of ceramics and natural stone units.

- For substrates that are moisture-sensitive and subject to significant deformation
- Particularly suitable for application to metal and wood-based products
- High flexibility and adhesive strength
- For use in shipbuilding
- For indoor and outdoor use

Use

With earthenware, stoneware and fully vitrified stoneware tiles, ceramic split tiles and split tile fittings, clinker floor tiles, glass and sintered glass mosaic, calibrated natural and cast stone units, resin-bonded tiles.

Kitchen worktops, prefabricated building interiors, metal stairs, lifts, wall and floor heating systems of sheet steel construction, in shipbuilding.

Suitable substrates

Moisture-sensitive substrates such as wood-based and gypsum products; concrete*, lightweight concrete*, aerated concrete*, cement render*, eminently hydraulic lime render*, renders made from masonry cement*, plane, flush-jointed masonry* (no composite masonry), cement screeds*, gypsum, gypsum plasterboard and gypsum fibreboard drywall panels, gypsum planks, fibre-cement board, decorative high-pressure laminate, calcium sulphate and magnesium oxychloride (magnesite) screeds, mastic asphalt screeds, cement-bonded and resin-bonded particle-board, existing tile, terrazzo, natural and cast stone coverings, existing PVC finishes, polyester (GRP), parquet flooring, plywood, metal surfaces.

Composition

Polyurethane, two-component

Mixing ratio

(For partial quantities) A : B = 8 : 1 parts by weight

Working life

Approx. 45 minutes

Walkable/groutable

After approx. 12 hours or after curing of PU adhesive

Loadable

After approx. 1 day; in commercial facilities after approx. 2 days, in areas subject to high wet exposure after approx. 2 days, for underwater applications after approx. 2 days, in conjunction with wall and floor heating after approx. 2 days

Application temperature

From +10 °C to +25 °C (substrate, air, material)

Wall and floor heating

Suitable

Coverage

Approx. 1.5 kg/m² per mm coat thickness

Shelf life

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

Packaging

6 kg bucket (combi pack)

* Specified substrates shall be pretreated with Sopro EPG 522 epoxy primer and blinded to excess with Sopro QS 507 fine silica sand or Sopro QS 511 coarse silica sand.

Substrate preparation

Substrate shall be dry, clean, solid, strong, of adequate dimensional stability and free from any adhesion-impairing substances (e.g. grease, wax, rust and wood preservative). Corrosion-prone metal surfaces shall be pretreated with rust-inhibiting primer.

Particleboard/chipboard shall be laid in a staggered pattern, with glued tongued and grooved joints and additionally screwed down; it shall be rigid and dry ($\leq 8\%$).

Gypsum plasterwork shall be dry ($\leq 1\%$), single-coat and shall not be felt-floated or smoothed.

Fill any existing cracks in screed with structurally bonding Sopro GH 564 casting resin. Calcium sulphate screeds shall exhibit a moisture content $\leq 0.5\%$ CM and be adequately ground, vacuum-cleaned and primed. Cement screeds shall be 28 days old and dry.

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

Following substrates shall be pretreated with Sopro EPG 522 epoxy primer and blinded to excess with Sopro QS 507 fine silica sand or Sopro QS 511 coarse silica sand:

concrete, lightweight concrete, aerated concrete, cement render, eminently hydraulic lime render, renders made from masonry cement, plane, flush-jointed masonry (no composite masonry), cement screeds.

Application

Two components are supplied in correct mixing proportions (5.33 kg Component A + 0.67 kg Component B).

Pierce (flat) container with hardener several times using awl or screwdriver to ensure that all hardener runs out.

Allow Component B to run into Component A and mix for min. 3 minutes to homogeneous, streak- and bubble-free consistency using mixing attachment at slow speed (7 rps). Transfer prepared mix to clean container and thoroughly stir! Do not apply material directly from original supplied container!

Sopro PUK 503 PU adhesive can be applied after transfer and stirring. Work in stages, spreading evenly over substrate to allow heat of reaction to dissipate. Apply thin coat, pressing down heavily, with finishing trowel, then apply combed bed with suitable notched trowel (tool angle $45^\circ - 60^\circ$). Place covering materials into adhesive bed, press down, push into position and align.

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: 3–4 mm for tesserae, 4–6 mm for wall and floor tiles, 6–8 mm for heavy ceramics and profiled tiles; clean tools with universal thinner while material is still fresh, mechanical removal required when cured.

Disposal

Component A: 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.

Component B: 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 not hardened product (EC waste code) : 07 02 08

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.

Test certificates

Kiwa Bautest Dresden:

– R2 T to DIN EN 12004

BG Verkehr (institution for statutory accident insurance and prevention for transport and traffic):

– Approval for shipbuilding in Sopro System 2.3 (wall), MED approval no. 118.224, USCG approval no. 164.117/EC0736/118.224. Wet-applied quantity Sopro PUK 503: max. 2,560 g/m².

Other components in Sopro System 2.3: fully vitrified stoneware tile (thickness 5 mm), Sopro Brilliant® water-repellent tile grout. Joints ≤ 4 mm.

– Approval for shipbuilding in Sopro System 3.4 (floor), MED approval no. 124.099, USCG approval no. 164.117/EC0736/124.099. Wet-applied quantity Sopro PUK 503: max. 2,560 g/m².

Other components in Sopro System 3.4: fully vitrified stoneware tile (thickness 5 mm), Sopro Brilliant® water-repellent tile grout. Joints ≤ 4 mm.

Please observe technical product information for relevant system components.

Safety precautions

All standard precautions for the handling of construction materials/chemicals shall be taken.

Labelling in accordance with Regulation (EC) No 1272/2008 (CLP)

Component A

Exempt from labelling requirements.

Component B

GHS07, GHS08

Signal word: Danger

Hazard-determining components: diphenylmethane diisocyanate, homologues, isomers.

Hazard statements: H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H332 Harmful if inhaled. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. H351 Suspected of causing cancer. H373 May cause damage to organs through prolonged or repeated exposure.

Supplemental hazard information: EUH204 Contains isocyanates. May produce an allergic reaction.

Precautionary statements: P201 Obtain special instructions before use. P280 Wear protective gloves/protective clothing/eye protection/face protection. P302+P352 IF ON SKIN: Wash with plenty of water and soap. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice/attention. P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.



Contains isocyanates. Manufacturer's instructions shall be observed.

For trade applicators only!

German Water Hazard Class (WGK): 1, slightly hazardous to water.

GSICODE (German hazardous substances classification): RU1 · Solvent-free polyurethane laying materials

CE marking

 2007	 Sopro Sopro Bauchemie GmbH Biebricher Straße 74 – 65203 Wiesbaden (Germany) www.sopro.com
04 CPR-DE3/0503.1.eng EN 12004:2007 + A1:2012 Sopro PUK 503 Improved reaction resin adhesive for tiling internal and external floors and walls	
Reaction to fire	class E
Bond strength as: Initial shear adhesion strength	≥ 2.0 N/mm ²
Durability for: Shear adhesion strength after water immersion Shear adhesion strength after thermal shock	≥ 2.0 N/mm ² ≥ 2.0 N/mm ²
Release of dangerous substances	see SDS

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