

Sopro PUK 503 PU Adhesive

Sopro PUK 503 PU Adhesive is a two-component, light-coloured polyurethane reaction resin adhesive, meeting R2 T requirements to DIN EN 12004, for laying and bonding of ceramic tiles, natural and cast stone units, and resin-bonded tiles. The product is particularly suitable for use with wood-based, gypsum-based and metal substrates. Meets enhanced requirements in terms of tensile and shear adhesion strengths, elasticity and watertightness on critical substrates.

- High flexibility and adhesive strength
- For substrates that are moisture-sensitive and subject to significant deformation
- Particularly suitable for application to metal and wood-based products
- For walls and floors
- For indoor and outdoor use
- With ship approval
- Meeting R2 T requirements to DIN EN 12004
- CE Marked

Field Of Application

For 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. Also for use with kitchen worktops, prefabricated building interiors, metal stairs, lifts, floor and wall heating systems of sheet steel construction and shipbuilding.

Suitable Substrates

Moisture-sensitive substrates such as wood-based and gypsum products; concrete*, lightweight concrete*, aerated concrete*, cement and eminently hydraulic lime renders*, 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-based and magnesium oxychloride (magnesite) screeds, mastic asphalt screeds, cement-bonded and resin-bonded particleboard, existing tile, terrazzo, natural and cast stone coverings, existing PVC finishes, polyester (GRP), parquet flooring, plywood, metal surfaces.

Substrate Preparation

The substrate should be dry, clean, solid, strong, of adequate dimensional stability and free from any adhesion-

impairing substances (e. g. grease, wax, rust and wood preservative). Moisture-sensitive substrates should be protected from rear moisture penetration. Corrosion-prone metal surfaces should be pretreated with rust-inhibiting primer. Particleboard/chipboard should be laid in a staggered pattern, with glued tongued and grooved joints and additionally screwed down; it must be rigid and dry ($\leq 8\%$). Gypsum plasterwork shall be dry ($\leq 1\%$), single-coat and should not be felt-floated or smoothed. Fill any existing cracks in screed with structurally bonding Sopro GH 564 cast resin. Calcium sulphate based screeds should exhibit a moisture content $\leq 0.5\%$ CM and be adequately ground, vacuum-cleaned and primed. Cement screeds must be 28 days old and dry. All relevant standards, guidelines and recommendations apply; workmanship must comply with good practice.

Application

The two components are supplied in the correct mixing ratio (component A 5.33 kg + component B 0.67 kg). Pierce (flat) container with activator several times using an awl or screwdriver, to ensure all activator is emptied out. Let Component B run into Component A and mix for min. 3 minutes to achieve a homogeneous, streak- and bubble-free consistency using mixing attachment at slow speed (7 rps). Transfer prepared mix to clean container and thoroughly restir. **Do not apply directly from original supplied container!** Remove Sopro PUK 503 adhesive from mixing container and apply. 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, slide into position and align. For grouting with epoxy resin grout, a waiting time of approx. 5 days is required. Test reports available on request.

* These substrates are required to be primed using Sopro Epoxy Primer EPG 522 and sand scatter blinded using either Sopro fine or Sopro coarse quartz sand.

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Tools and 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 with universal thinner for fresh adhesive, mechanically when cured.

Test Certificates

Kiwa Bautest Dresden: – R2 T to DIN EN 12 004

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. 164.112/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.

Storage

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

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 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.

Safety

Labelling Labelling requirements to EC Directive 1272/2008 (CLP). All standard precautions for the handling of construction materials/chemical are to be taken. See Sopro Material Safety Data Sheet for further information.

Component A - Exempt from labelling requirements under German Hazardous Substances Ordinance (GefStoffV).

Component B - GHS07 GHS08

Signal word: Danger.

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

EUH statements

EUH204 Contains isocyanates. May produce an allergic reaction. Manufacturer's instructions must be observed.

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.

Precautionary Statements:

P201 Obtain special instructions before use.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+352 If on skin: wash with plenty of soap and water.

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 or doctor/physician.

Contains isocyanates. Manufacturer's instructions must be observed.

For professional users only!


German Water hazard class (WGK): 1, slightly hazardous to water.

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

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Technical Information

Composition	Polyurethane, two-component
Pot Life	Approx. 45 minutes
Mixing ratio	(for partial quantities) A:B = 8:1 parts by weight
Walkable/Groutable	After approx. 12 hours respectively after setting 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 areas after approx. 2 days; in conjunction with floor heating after approx. 2 days.
Specified times	Apply for normal temperature range of +23 °C and 50 % relative humidity; higher temperatures shorten and lower temperatures lengthen these times
Application Temperature	From +10 °C up to +25 °C (substrate, air, metal)
Floor Heating	Suitable
Coverage	Approx. 1.5 kg/m ² per mm coat thickness
Packaging	Bucket 6 kg (combi-pack = components A+B).

	<p align="center">Sopro Bauchemie GmbH Biebricher Straße 74 · 65203 Wiesbaden (Germany)</p>
	<p align="center">2007</p>
<p align="center">04 CPR-DE3/0503.1.eng EN 12 004:2007 + A1:2012 Sopro PUK 503</p>	
<p align="center">Improved reaction resin adhesive for tiling internal and external floors and walls</p>	
Reaction To Fire	Class E
Bond strength as: Initial shear adhesion strength	≥ 2.0 N/mm
Durability for:	
Shear adhesion strength after water immersion	≥ 2.0 N/mm
Shear adhesion strength after thermal shock	≥ 2.0 N/mm
Release of dangerous substances	see MSDS




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