ASODUR®-EPG

HEAVY-DUTY WATER BASED EPOXY ADHESIVE AND JOINT MORTAR

Product Description:

- Water-based epoxy, two-component system.
- Characterised by great hardness, high bond strength, and compressive and flexural strengths in the cured state.
- Resistant to a multitude of acids, alkaline solutions, concrete-damaging water, cleaning agents, seawater and brine.
- Easily washed off with water when fresh.
- Protected against bacterial attack and fungal infestation.
- Very smooth, ease of processing.
- Very low emission.

Area of Application:

ASODUR®- EPG is used:

- For bonding ceramic tiles and boards using the thin-bed method, on concrete, screed, plaster, old, tiled finishes and other substrates.
- For grouting ceramic tile and board coverings
- In interior and exterior areas
- For heated substrates
- For levelling minor unevenness on concrete, screed and plaster surfaces
- ASODUR®-EPG is used in canteen kitchens, laboratories, swimming pools, dairies, meat processing plants and other areas of the food and chemical industry.

Technical Properties:

Basis	: Filled epoxy resin
Colour	: Standard White or Grey. Custom colours can be offered on request.
Viscosity	: Paste consistency.
Adhesive bed thickness	: 1–10 mm.
Joint width	: up to 20 mm.
Density	: approx. 1.40 g/cm^3 at +23°C
Mixing ratio	: 2:1 parts by weight.
Pot life	: approx. 60 min. at +23°C.
Washable	: after approx. 15 min. but within 60 min. at +23°C.
Minimum curing temperature	: +10°C
Application temp.	: +10°C to +30°C, optimum at +15°C to +25°C.
Foot traffic	: after min.16 hours at +23°C
Lightly/fully cured	: after approx. 48 hours/7 days at +23°C.
Cleaning the tools	: All tools must be meticulously cleaned with water every time work is interrupted.
Packaging	: 6 kg container. Both components are delivered in the predetermined mix ratio.
Storage	: frost-free, 12 months in the original unopened container, promptly use opened container.

Material consumption:
- Bonding:

approx.	1.4 kg/m^2 and mm layer thickness
approx.	2.8 kg/m^2 with 6 mm notched trowel
approx.	3.8 kg/m^2 with 8 mm notched trowel
approx.	4.7 kg/m^2 with 10 mm notched trowel
approx.	7.4 kg/m^2 with 15 mm notched trowel

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Grouting:

Ceramic fabrics	Format size in cm	Joint width in mm	Approx. consumption in kg/m²
Split boards	24.0/11.5/1.5	8	2.25
	24.0/11.5/1.5	10	2.77
	24.0/11.5/2.0	8	3.00
	24.0/11.5/2.0	10	3.70
	24.0/11.5/2.5	8	3.75
	24.0/11.5/2.5	10	4.62
Medium mosaic	5.0/ 5.0/0.4	2	0.47
Stoneware	4.2/ 4.2/0.6	1.5	0.64
	10.0/10.0/0.9	3	0.81
	15.0/15.0/1.2	5	1.19
	24.5/12.0/0.8	5	0.74

Substrate Preparation:

The surfaces to be treated must be:

- Dry, firm, load-bearing and grippy.
- Free of separating and adhesion inhibiting substances, e.g., dust, slurry, grease, rubber abrasion, coating residue, etc.
- Protected from the effects of moisture from the rear. Depending on the nature of the substrate to be treated, suitable methods, e.g., sweeping, vacuuming, brushing, grinding, milling, sandblasting, and shot blasting, should be used for preparation.

Depending on the respective cement-based substrate, the following criteria must also be fulfilled:

Concrete quality class, PCC mortar (in accordance with DIN EN 1504-3):	min. C 20/25, at least 3 months old, Surface tensile strength ≥ 1.2 N/mm²
Plaster quality class:	Cement and lime-cement plaster (P III a/P III b), at least 28 days old, surface tensile strength ≥ 0.8 N/mm²
Screed quality class	min. CT-C25-F4, at least 28 days old, surface tensile strength ≥ 0.8 N/mm² In combination with tile and board coverings on a separating layer or insulation, residual moisture of ≤ 2 CM % must be maintained.

Application:

Both A (resin) and B (hardener) components are delivered in the predetermined mix ratio. Comp. B is added completely to comp. A. The two components are mixed with a mechanical agitator at max. 300 min-1. (Slow-running drill with a whisk). Mix very thoroughly! It is imperative to also stir thoroughly from the sides and bottom so that the hardener is evenly distributed! Continue stirring until the mixture becomes homogenous. Do not apply from the delivered packaging. Transfer the mixed material into a separate, clean container and stir again.

Board bonding:

ASODUR®- EPG is applied as an adhesive mortar with a smoothing trowel and combed off evenly with a notched trowel. Use a notched trowel suitable for the board format and substrate. Afterwards, the boards are to be laid by pushing them in and pressing them into place. Laying is in accordance with DIN 18157. In outdoor areas and with high mechanical loads, a largely cavity-free laying is required.

Tile/board grouting using the slurry method:

The mixed ASODUR®- EPG grouting compound is applied to the surface in sections and then and then immediately applied to the clean and dry joints with an epoxy grouting board. The joints must be filled

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completely. The excess material is then removed from the tile surface with the epoxy grout board by striking it off in a diagonal direction to the grout line.

Grouting with compressed air guns:

For application with compressed air guns, ASODUR®-EPG is mixed and poured into a separate suction container. The cartridges are filled via a pressure plate. A compressor with a capacity of at least 10 bar and a suction capacity of approx. 100 l/min. is required.

Washing off the tile surface:

After removing the excess material with the epoxy joint board, emulsify the remaining joint material on the surface with a damp hydro-sponge board. After emulsification, the slurry is taken off with a hydro sponge board. Then clean the tile surface again with a clean, hydro sponge. This cleaning should only be carried out after ASODUR®- EPG has started to take effect (approx. 15–30 minutes). For final cleaning, approx. 10 % spirit can be added to the water. Before the grouted surface is put into operation, it must be thoroughly cleaned according to its use.

Instructions for reworking damaged or washed-out cement joints:

A. The joint depth must be at least 3 mm.
B. Re-bond loose tiles with ASODUR®-EKF.
C. The joints must be dry, dust-free and free of adhesion-reducing substances.

Physiological behaviour and protective measures:

ASODUR®-EPG is physiologically flawless after complete curing. The hardener (B-component) is corrosive. It is therefore imperative to ensure that the skin does not come into contact with the hardener. Personal protective equipment, e.g. protective gloves/eye protection, must be used. Clean any soiling with plenty of water and soap, preferably with the addition of 2 % household vinegar. If splashes get into the eyes, rinse immediately with plenty of water. Afterwards, rinse with an eye wash bottle filled with boric acid water – available in medical supply shops – then consult an ophthalmologist immediately.

Important advice:

- Abrasive strain during use may cause scratches in the joint surface, which will be visible, particularly in the case of dark colours. This will not have a negative impact on functional capability.
- At low temperatures, it is recommended to heat the material in a water bath at approx. +50 °C before use and then let it cool down to room temperature. This restores the processing properties.
- Low object temperatures increase consumption. The material thus loses its good workability, and the reaction times are prolonged.
- High temperatures shorten the processing time.
- The colour shades may exhibit slight differences.
- in colour due to raw material fluctuations. Therefore, contiguous surface sections should be coated using the same production batch.

The technical information “Interface coordination for heated floor constructions”

The ZDB data sheets published by the Technical Association of German Tile Industry, e.g.:
[*1] Bonded seals (AIV).
[*2] Swimming pool construction.
[*3] Expansion joints in cladding and coverings made of tiles and boards.
[*4] Ceramic tiles and boards, natural stone and synthetic stone on the cement-based floor constructions with insulation layers.
[*5] Coverings on cement and calcium sulphate screeds.
[*6] Ceramic tiles and boards, natural stone and synthetic stone on heated, cement-based floor constructions.
[*7] Outer coverings. [*11] Clean, protect, care.
[*8] Clean, protect, care.

Please observe a valid safety data sheet!

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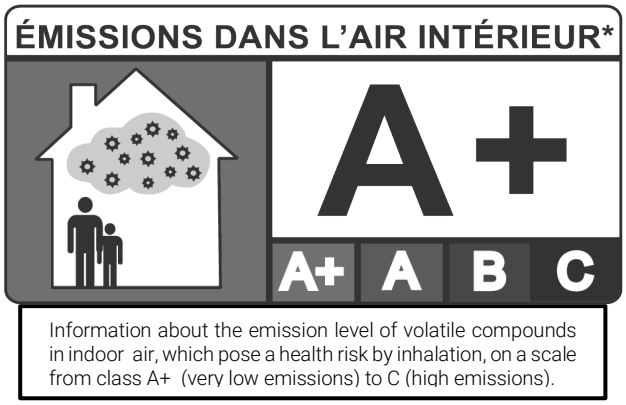

Information about the emission level of volatile compounds in indoor air, which pose a health risk by inhalation, on a scale from class A+ (very low emissions) to C (high emissions).

Colouring*:

Medium grey.

Titanium grey.

* Colour deviations are due to printing technology.

	Medium	Concentration	ASODUR®-DESIGN, ASODUR®-EKF
Acids	Formic acid	2 %	■
	Formic acid	5 %	(■)
	Acetic acid	2 %	■ ■
	Acetic acid	5 %	■
	Acetic acid	10 %	(■)
	Lactic acid	2 %	■ ■
	Lactic acid	5 %	■ ■
	Lactic acid	10 %	■ ■
	Oxalic acid	2 %	■ ■
	Oxalic acid	5 %	■ ■
	Phosphoric acid	2 %	■ ■
	Phosphoric acid	5 %	■ ■
	Phosphoric acid	10 %	■ ■
	Nitric acid	3 %	■ ■

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Acids	Hydrochloric acid	3 %	■■
	Hydrochloric acid	32 %	■
	Sulphuric acid	50 %	■
	Tartaric acid	2 %	■■
	Tartaric acid	5 %	■■
	Citric acid	2 %	■■
	Citric acid	5 %	■■
	Citric acid	10 %	■■
Alkaline solutions	Ammonia	5 to 10 %	■■
	Ammonia	25 %	■
	Calcium hydroxide	2 %	■■
	Calcium hydroxide	10 %	■■
	Calcium hydroxide	30 %	■■
	Chlorine bleach	28 %	■
	Caustic potash	2 %	■■
	Caustic potash	10 %	■■
	Caustic potash	20 %	■■
	Caustic potash	30 %	■■
	Sodium hydroxide	2 %	■■
	Sodium hydroxide	10 %	■■
	Sodium hydroxide	20 %	■■
	Sodium hydroxide	30 %	■■
	Sodium hypochloride	13 %	■■
Oils	Heating oil/diesel		■■
	Heating oil/diesel	neat	■■
	Hydraulic oil		■■
	Engine oil	neat	■■
	Olive oil	neat	■■
	Parafln oil	neat	■■
	Silicone oil	neat	■■
	Sunflower oil	neat	■■
	Cooking oil		■■
	Turpentine	neat	(■)
Solvents	Acetone	neat	(■)
	Butanol	neat	(■)
	Ethanol	neat	(■)
	Ethyl acetate		(■)
	n-hexane	neat	(■)
	Isopropanol	neat	(■)
	Petroleum ether		(■)
	Toluene	neat	(■)
	Xylene	neat	(■)

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Cleaners, disinfectants	Anti-Germ MS liquid, contains sodium hydroxide and alkylbenzyldimethyl-ammonium chloride, 5 ml/l water		■
	Anti-Germ Nepurin HD contains phosphoric acid and alkylbenzyldimethyl-ammonium chloride, 30 ml/l water		■
	Anti-Germ SVM liquid, contains sulphuric acid and amino trimethylene phosphonic acid, 30 g/l water		■
	Anti-Germ SX liquid, contains phosphoric and nitric acid, 12.5 ml/l water		■
	Ecolab Bendurol forte, contains phosphate and fatty alcohol ethoxylate, 1: 5 diluted with water		■
	Ecolab Helotil, contains phosphoric acid, 1:10 diluted with water		■
	Ecolab Into, contains sulphamic acid and ethanol, 12.5 ml/l Ecolab Segil 2000, contains alkyl polyglycosides, citric acid and ethanol, 12.5 ml/l		■
Miscellaneous	Petrol	neat	■
	DI water	neat	■ ■
	Developer solution		■
	Formaldehyde		■
	Glycerine		■
	Glycerine	neat	■
	Glycol		■
	Urine, human/livestock		■
	Whey	neat	■
	Sodium chloride, 35 % in water		■ ■
	Sodium sulphate, 20 % in water		■ ■
	North Sea water		■ ■
	Water, 5° dH		■ ■
	Water, 15° dH		■ ■
	Hydrogen peroxide	10 %	■ ■
	Anti-Germ VM liquid	neat	■ ■

Legend:

■ = highly resistant >14 D
■ ■ = highly resistant >14 D
(■) = highly resistant >14 D

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