

Technical Data Sheet



AB-POX® 003

2-C-EP-priming resin

Description: 2-component epoxy resin, medium viscosity, colourless, unfilled
VOC < 500 g/l, free of nonylphenol

- Characteristics:**
- primer, key coat and mortar resin
 - low yellowing
 - very high chemical resistance
 - very high mechanical resistance
 - inert and harmless once cured

Application: **AB-POX 003** is a special epoxy resin of medium viscosity, which is suitable as a primer, key coat and binder for mortars. The resin offers universal use as it mixes well with a wide range of dry fillers i. e. quartz sand, quartz powder, basaltic grit, hard aggregates, granite, silicon carbide or coloured quartz sand.

Consumption: 0.3 - 0.5 kg/m² as primer, always sprinkle with dry quartz sand Ø 0.4 - 0.8 mm (approx. 0.5 kg/m²).

- Resistant to:**
- water / sewage
 - alkalis
 - mineral oil
 - dry temperature max. 80°C
 - saline solutions
 - diluted acids
 - lubricants and fuels
 - wet temperature short-term max. 60°C

Technical Data:

Mixing ratio A : B	100 : 50 by weight (2 : 1)
Density (23°C)	approx. 1.10 g/cm ³
Volume solids	approx. 100 %
Viscosity (23°C)	approx. 550 mPa·s ± 150
Compressive strength (DIN EN ISO 604)	60 - 80 N/mm ² (depending on filler ratio)
Tensile strength (DIN EN ISO 178)	30 N/mm ²
First contact with water	after 24 hours (23°C)

Details for application:

Pot life (12°C / 23°C / 30°C)	approx. 40 minutes / 25 minutes / 15 minutes
Substrate temperature	minimum 12°C up to maximum 30°C
Material temperature	15°C - 25°C
Maximum relative humidity of air	at 12°C: 75 % (dew point +3°C) at > 23°C: 85 % (dew point +3°C)
Duration between applications (if sprinkled with quartz sand, the duration will increase)	12°C: min. 16 hours max. 36 hours 23°C: min. 8 hours max. 24 hours 30°C: min. 6 hours max. 16 hours
Curing time / foot traffic (12°C / 23°C / 30°C)	24 hours / 16 hours / 12 hours
Curing time / mech. resistance (12°C / 23°C / 30°C)	72 hours / 48 hours / 24 hours
Curing time / chem. resistance (12°C / 23°C / 30°C)	7 days / 5 days / 4 days
All above values are approximate and may be used as a guideline for specifications	

Packaging: 25 kg - pails
200 kg - barrel

Colour: clear

Storage: 12 months, unopened in original drums under dry conditions and a temperature of 15 - 25°C. At temperatures < 10°C crystallisation is possible. Please consult us.

1. Surface preparation

Prior to the application the substrate must be prepared by mechanical means using qualified equipment e.g. Blastrac® shot blasting.

Minimum requirements:

- free of cement laitance, dust, oil, fat and other contaminants
- open textured, absorbent surface
- pull off strength min. 1.5 N/mm²
- concrete residual moisture max. 4 %

On concrete surfaces where there is rising damp, residual moisture or damp concrete of maximum 6 %, AB-POX 010 must be used. See also "general preparation and application instructions" sheet.

2. Application

Prior to mixing, the temperature of the components must be between 15 - 25°C. Mix the components in the correct ratio using a suitable low speed electric mixer (300 - 400 rpm) for at least 3 minutes or until a completely homogeneous mixture has been achieved. Put the mixed material into a clean container and mix again for at least 1 minute more. After mixing, fillers can be added whilst stirring constantly. Distribute the mixture immediately onto the surface. Depending on the condition of the substrate we recommend applying a primer and a key coat or a filled primer. Use a rubber squeegee to spread the primer evenly and finish with a paint-roller. The key coat (1 : 0.8 up to 1 : 1 w/w) and the filled primer (1 : 1 up to 1 : 2.5 w/w) can be formulated using **AB-POX 003** and clean, dry, tempered quartz sand. The mixture should be applied by notched trowel or scraper. The applied coating must always be lightly sprinkled with clean, dry quartz sand Ø 0.4 - 0.8 mm (approx. 0.5 kg/m²). Prior to, during and after the application the temperature of the substrate must be at least +3°C above the current dew point temperature.

Primer: approx. 0.3 - 0.5 kg/m².

Key coat: 1 : 0.8 up to 1 : 1 filled with clean, dry quartz sand Ø 0.1 - 0.3 mm.

Consumption: approx. 0.75 kg/m² resin plus clean, dry quartz sand.

3. System description

The following figures are for ambient and surface temperatures of 15 - 23°C. Both high and low temperatures will influence the filler ratio and the consumption per m².

AB-POX 003 can be used in various ways. The most common applications are:

Coloured broadcast flooring:

Apply a coating of **AB-POX 003** approx. 1 : 1.5 filled with clean, dry quartz sand and broadcast the surface in excess with coloured quartz sand. Once cured, remove the excess sand and carefully abrade the surface using a grinder that is equipped with a carborundum paper disc. Afterwards, thoroughly clean the surface with an industrial vacuum cleaner. Finally apply a sealer / topcoat using **AB-POX 011** or **AB-POX 011 Plus** (depending on use).

Intermediate coat:

AB-POX 003 + quartz sand
Consumption: approx. 1.5 kg/m² resin plus clean, dry quartz sand.
Consumption: Coloured quartz sand to broadcast the surface approx. 5 kg/m².

Sealer / topcoat:

AB-POX 011 or **AB-POX 011 Plus** (depending on use).
Consumption: approx. 0.6 - 1.0 kg/m², depending on grain size and roughness.

Epoxy screed / mortar:

The use of the product and the expected wear and tear will determine the choice of fillers.

E. g. 10 mm, impervious EP - mortar: approx. 1 : 7 filled with Silimix 282.

N/B:

UV radiation cause discolouration.

4. Chemical resistance

Acetic acid 5 %	short-term
Acetic acid 10 %	short-term
Ammonia 5 %	resistant
Boric acid 4 %	resistant
Chlorine bleach 6 %	resistant
Citric acid < 10 %	resistant
Formaldehyde 37 %	resistant
Formic acid 2 %	resistant
Hydrochloric acid 10 %	short-term
Hydrochloric acid 30 %	short-term
Nitric acid 10 %	resistant
Petrol / Super	resistant
Phosphoric acid 25 %	resistant
Sodium lye 50 %	resistant
Sulphuric acid 40 %	short-term
Tannic acid solution	resistant
Xylene	short-term

Tested for 3 months at 20°C; whether discolouration did occur was not considered.

5. Packaging

25 kg - sets
16.66 kg component A
8.34 kg component B
delivery in barrels
2 x 200 kg component A
1 x 200 kg component B

6. Health and safety

GISCODE: RE30

Avoid inhalation of the vapours and contact with skin. Wear suitable protective clothing, gloves and eye / face protection. Adequate ventilation of the working area is recommended. After contact with skin, wash immediately with plenty of water and soap. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. When using do not eat, drink, smoke and keep away from sources of ignition. For additional references to safety-hazard warnings, regulations regarding the transport and waste management please refer to the relevant Safety Data Sheet.

7. EU Directive ("Decopaint-RL"):

Acc. to the EU Directive 2004/42/EG the maximum allowed content of VOC (Product category All / j / type SB) is 500 g/l (Limit 2010) for the ready to use product. This product is in accordance with the EU Directive 2010.

AB-POX 003; 2.00/07.01.19. Before use, please check that this is the actual edition of the Technical Data Sheet. The information contained in this Technical Data Sheet is of a general nature and is provided in good faith and we accept no liability for errors or omissions. Because use and application of this product are out of our control and depend, concerning substrate, load and method of application, on the particularities of the individual case, our advice, verbal, written or based on tests, does not exempt the applicator from testing the suitability of the products for the intended use.

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