

Technical Data Sheet



AB-POX[®] 011

2-C-EP-decorative binder

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

- Characteristics:**
- low yellowing
 - medium viscosity
 - high chemical resistance
 - very high mechanical resistance
 - inert and harmless once cured

Application: **AB-POX 011** is a special epoxy resin binder with good characteristics for coloured quartz flooring systems. **AB-POX 011** shows only a slight tendency to yellow, which is not typical for epoxy resins. Depending on the layer thickness, the yellowing will be sooner or later more visible. **AB-POX 011** is universal in character as it mixes well with a wide range of fillers i. e. coloured quartz sand, PVA - flakes or other decorative fillers. The material is particularly suitable for use on cementitious indoor areas i. e. industrial production plants, kitchens, food industry, showrooms, sales areas, supermarkets, etc.

Consumption: 0.4 - 1.5 kg/m², depending on use.

- Resistant to:**
- water / sewage
 - alkalis
 - mineral oil
 - wet temperature max. 40°C
 - saline solutions
 - diluted acids
 - lubricants and fuels
 - wet temperature short-term max. 80°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. 700 mPa·s ± 100
Compressive strength (DIN EN ISO 604)	50 - 70 N/mm ² (depending on filler ratio)
Tensile strength (DIN EN ISO 178)	30 N/mm ²
Water absorption	< 1.5 %
First contact with water	after 24 hours (23°C)

Details for application:

Pot life (15°C / 23°C / 30°C)	approx. 60 minutes / 40 minutes / 25 minutes
Substrate temperature	minimum 15°C up to maximum 30°C
Material temperature	15°C - 25°C
Maximum relative humidity of air	at 15°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)	15°C: min. 16 hours max. 36 hours 23°C: min. 8 hours max. 24 hours 30°C: min. 4 hours max. 12 hours
Curing time / foot traffic (15°C / 23°C / 30°C)	24 hours / 16 hours / 12 hours
Curing time / mech. resistance (15°C / 23°C / 30°C)	72 hours / 48 hours / 48 hours
Curing time / chem. resistance (15°C / 23°C / 30°C)	7 days / 5 days / 5 days
All above values are approximate and may be used as a guideline for specifications	

Packaging: 25 kg - pails
200 kg - barrel
1000 kg - container

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 %

Depending on the condition of the substrate the surface must be made non-porous by the application of a primer and / or key coat using **AB-POX 002**, followed by a light sprinkle of clean, dry quartz sand.

On concrete surfaces where there is rising damp, residual moisture or damp concrete of maximum 6 %, AB-POX 010 must be used.

Once cured, carefully remove excess sand. 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 use, **AB-POX 011** will be mixed with clean, dry, tempered quartz sand. The choice of the mixing ratio (w/w) depends on use. The mixture should be applied by notched trowel or scraper. **AB-POX 011** can also be used as an unfilled sealer coat or topcoat on surfaces where quartz sand has been broadcast. In this case use a rubber squeegee to spread the resin evenly and finish with a short-haired paint-roller. Prior to, during and after the application the temperature of the substrate must be at least +3°C above the current dew point temperature.

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 011 can be used in various ways. The most common applications are:

Coloured broadcast flooring:

Apply a coating of **AB-POX 011** approx. 1 : 1 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**.

Intermediate coat:

AB-POX 011 + 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, clear

Consumption: approx. 0.6 - 1.0 kg/m², depending on grain size and roughness.

Decorative coloured flake flooring:

For this system we recommend starting with a key coat which must be lightly sprinkled with clean, dry quartz sand Ø 0.1 - 0.3 mm. Apply on this a coating of **AB-POX 011** with a consumption of approx. 0.5 kg/m², then broadcast the surface in excess with suitable coloured flakes. The colour depends on the desired finish / effect. Once fully cured, remove the residual flakes 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**.

Consumption: approx. 0.25 - 1.0 kg/m², depending on use.

Professional maintenance will increase the service life of the flooring system.

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
Diesel	resistant
Engine oil	resistant
Formaldehyde 37 %	resistant
Hydrochloric acid 10 %	resistant
Petrol / Super	resistant
Phosphoric acid 25 %	resistant
Sodium lye 50 %	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 011; 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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