

# Technical Data Sheet



## AB-POX<sup>®</sup> 490

2-C-EP-highly chemically resistant

**Description:** 2-component epoxy coating, coloured  
VOC < 500 g/l, free of nonylphenol

- Characteristics:**
- tough-hard
  - thixotropic - levelling
  - high abrasion resistance
  - economical
  - very high chemical resistance
  - high mechanical resistance
  - inert and harmless once cured

**Application:** **AB-POX 490** is a coating for areas with excessive chemical exposure of solvents, diluted acids and diluted alkalis. **AB-POX 490** will improve the chemical resistance significantly as an one – or better dual roller coating on suitable **AB-POX**- and **AB-PUR** - coatings. **AB-POX 490** is also suitable as 2 to 3 times roller coat on floor and wall surfaces, which have been primed with an epoxy resin and sprinkled with quartz sand (see notes page 2). In case of high chemical load we recommend a self-levelling coating.

**Consumption:** 0.3 - 0.5 kg/m<sup>2</sup> per coat by roller (minimum 2 coats are recommended);  
1.5 - 3.0 kg/m<sup>2</sup> by trowel, depending on load.

- Resistant to:**
- water / sewage
  - washing agents / detergents
  - saline solutions
  - wet temperature max. 60°C
  - solvents (please consult us)
  - diluted acids and alkalis
  - lubricants and fuels

<b>Technical Data:</b>	Mixing ratio A : B	100 : 33.3 by weight (3 : 1)
	Density (23°C)	approx. 1.35 g/cm <sup>3</sup>
	Volume solids	approx. 100 %
	Viscosity (23°C)	thixotropic - levelling
	Compressive strength (DIN EN ISO 604)	> 40 N/mm <sup>2</sup>
	Shore D - hardness (DIN EN ISO 868)	approx. 70
	Tensile strength (DIN EN ISO 178)	45 N/mm <sup>2</sup>
	Abrasion (1000 g / 1000 rev.) according to Taber	65 mg
	Crack-bridging	0.20 mm according to BPG

<b>Details for application:</b>	Pot life (12°C / 23°C / 30°C)	approx. 30 minutes / 20 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)
	Curing time / foot traffic (12°C / 23°C / 30°C)	36 hours / 24 hours / 16 hours
	Curing time / mech. resistance (12°C / 23°C / 30°C)	96 hours / 48 hours / 24 hours
	Curing time / chem. resistance (12°C / 23°C / 30°C)	7 days / 5 days / 2 days
	All above values are approximate and may be used as a guideline for specifications	

**Packaging:** 30 kg - pails

**Colour:** pebble grey approx. RAL 7032 (other colours are available on request)  
- due to raw material variations and manufacturing techniques, a slight colour / batch difference may occur -

**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/mm<sup>2</sup>
- 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. To apply **AB-POX 490** as an even coat with uniform thickness use a notched trowel (rubber or metal). **The freshly applied coating should be finished off with a spiked roller within 5 minutes to achieve an excellent surface and to remove bubbles. This is even more important when filled with quartz sand. In order to improve the optical quality (e.g. reddish shades of grey), the fresh coating should be treated with a suitable nylon roller (e.g. 14 mm pile height).** To apply **AB-POX 490** as topcoat over a non-slip surface that has been broadcast in excess, sharply scrape using a rubber rake the material over the top of the surface, and finish with a short-haired paint-roller. of the surface, and finish with a short-haired paint-roller. On walls minimum 2 coats must be applied by 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 m<sup>2</sup>.

### Primer:

**AB-POX 010**, clear

Consumption: approx. 0.4 - 0.5 kg/m<sup>2</sup>, lightly sprinkle with clean, dry quartz sand Ø 0.4 - 0.8 mm (approx. 0.5 kg/m<sup>2</sup>).

### Key coat:

**AB-POX 010** + quartz sand

Consumption: approx. 0.6 kg/m<sup>2</sup> resin plus quartz sand, lightly sprinkle with clean, dry quartz sand Ø 0.4 - 0.8 mm (approx. 0.5 kg/m<sup>2</sup>).

### Coating:

**AB-POX 490**, pebble grey

Consumption: approx. 2.5 kg/m<sup>2</sup>.

System thickness: approx. 3 mm.

Sprinkling the coating with e.g. silicone carbide or Mandurax will increase the system layer thickness and improve the mechanical resistance.

Please consult us!

### Notes:

**In the case of a multi-layer coating, it is necessary to carry out a careful intermediate sanding and a professional cleaning of the surface.** UV radiation cause discolouration.

## 4. Chemical resistance

Acetic acid 5 %	resistant
Acetic acid 10 %	resistant
Ammonia 5 %	resistant
Boric acid 4 %	resistant
Chlorine bleach 6 %	resistant
Citric acid < 10 %	resistant
Diesel fuel	resistant
Distilled water	resistant
Engine oil	resistant
Formaldehyde 37 %	resistant
Formic acid 2 %	resistant
Formic acid 5 %	short-term
Hydrochloric acid 10 %	resistant
Hydrochloric acid 20 %	resistant
Kerosene	resistant
Lactic acid 10 %	resistant
Methylene chloride	short-term

Petrol / Super	resistant
Phosphoric acid 25 %	resistant
Nitric acid 10 %	resistant
Olive fermentation	resistant
Saline solution	resistant
Salt water	resistant
Sewage	resistant
Sodium lye 50 %	resistant
Sulphuric acid 20 %	resistant
Tannic acid solution	resistant
Xylene	resistant
Water	resistant

Tested for 43 days at 20°C; whether discolouration did occur was not considered.

## 5. Packaging

30 kg - sets

22.5 kg component A

7.5 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 490;** 2.01/19.01.21. 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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