

Technical Data Sheet



AB-PUR® 590 2-C-PU-waterproofing / trowel applied

Description: 2-component modified polyurethane waterproofing, high thixotropic, coloured
VOC < 500 g/l, softener free

- Characteristics:**
- waterproofing below tiles
 - resistant to moisture
 - acid resistant
 - resistant to sewage
 - very high chemical resistance
 - see list of chemicals that it is resistant to
 - crack-bridging
 - inert and harmless once cured

Application: **AB-PUR 590** is a product that has both low water absorption and a very high resistance to moisture. **AB-PUR 590** also has high elasticity coupled with very good chemical resistance, which together offer the perfect moisture resistant system. By using **AB-PUR 590** below sensitive surfaces e.g. parquet floors, they will be protected against rising damp or moisture. **AB-PUR 590** is also an ideal and safe solution for waterproofing below tiles.
Not resistant to solvents.

Consumption: 2.0 - 4.0 kg/m², usually applied in 2 coats.

- Resistant to:**
- diluted acids and alkalis
 - flexible at low temperatures, down to -40°C
 - detergents

Technical Data:	Mixing ratio A : B	100 : 25 by weight (4 : 1)
	Density (23°C)	approx. 1.10 g/cm ³
	Volume solids	approx. 100 %
	Viscosity (23°C)	high thixotropic
	Shore D - hardness (DIN EN ISO 868)	approx. 20
	Elongation at break (DIN 53504)	approx. 100 %

Details for application:	Pot life (10°C / 23°C / 30°C)	approx. 40 minutes / 20 minutes / 10 minutes
	Substrate temperature	minimum 10°C up to maximum 30°C
	Material temperature	15°C - 25°C
	Maximum relative humidity of air	at 10°C: 75 % (dew point +3°C) at > 23°C: 85 % (dew point +3°C)
	Curing time / foot traffic (10°C / 23°C / 30°C)	36 hours / 24 hours / 16 hours
	Curing time / mech. resistance (10°C / 23°C / 30°C)	72 hours / 48 hours / 24 hours
	Curing time / chem. resistance (10°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: 5 kg - pails

Colour: beige (other colours are available on request)
- due to raw material variations and manufacturing techniques, a slight colour / batch difference may occur -

Storage: 6 months, unopened in original drums under dry conditions and a temperature of 15 - 25°C.
At temperatures < 15°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 Ø 0.1 - 0.5 mm.

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. Distribute the mixture immediately onto the surface. To apply use a notched trowel (rubber or metal). Spread **AB-PUR 590** as an even coat ensuring uniform thickness. To achieve an integral waterproofing system, we advise the use of 2 coats of **AB-PUR 590**. As waterproofing system below tiles the second coat must be broadcast / sprinkled with clean, dry quartz sand Ø 0.4 - 0.8 mm. 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.

Primer:

AB-POX 002, clear

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

Key coat:

AB-POX 002 + quartz sand

Consumption: approx. 0.6 kg/m² resin plus quartz sand, lightly sprinkle with clean, dry quartz sand Ø 0.1 - 0.5 mm (approx. 0.5 kg/m²).

Waterproofing:

AB-PUR 590, beige

Consumption: approx. 2.0 - 4.0 kg/m².

System thickness 2 - 3 mm.

Minimum coating thickness: 2 mm.

Depending on the system, an additional wear coat of **AB-PUR 590** (broadcast with quartz sand) or another suitable PU - coating must be applied. When an epoxy topcoat is used, the previously applied material / coat must be always broadcast with quartz sand. Ensure that both the top and bottom coat are of an adequate proportion to verify the overall performance of the system. Please request for detailed information.

N/B:

UV radiation cause discolouration.

4. Chemical resistance

Acetic acid < 20 %	resistant
Citric acid < 10 %	resistant
Diesel	resistant
Engine oil	resistant
Formaldehyde 37 %	resistant
Formic acid < 10 %	resistant
Hydrochloric acid < 30 %	resistant
Lactic acid < 30 %	resistant
Nitric acid < 10 %	resistant
Phosphoric acid < 50 %	resistant
Saline solution 20 %	resistant
Sodium lye 50 %	resistant
Sulphuric acid < 60 %	resistant

N/B:

Low resistance to solvents

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

5. Packaging

5 kg - sets

4 kg component A

1 kg component B

6. Health and safety

GISCODE: PU40

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-PUR 590; 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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