

POLIUREICO P

WATERPROOFING PROCESS

INFORMATION ON USAGE

Name

POLIUREICO P WATERPROOFING PROCESS

Description

High tech waterproofing system with pure polyurea for flooring, even drive-over floors. Made of special polymers that create pure, solvent-free polyurea membranes.

Superb elasticity, excellent resistance to chemicals and spray-on application make this product suitable for a wide range of applications, guaranteeing an elastic, resistant, continuous waterproofing layer.

Principal application

Indoors / Outdoors

- *waterproofing of parking lots*
- *roof covering*
- *slabs for bridges*
- *viaducts*
- *tunnels*
- *basins/canals*
- *industrial flooring*

Suitability of the substrate (concrete)

Residual moisture content: < 5%

Compressive strength: > 220 kg/cm²

Surface resistance to tearing: > 1.5 MPa

Total thickness of coating

2-3 mm

CHARACTERISTICS

Application components

Stabiliser / Primer: Epoxy Bond (IVAS)

Intermediate layer: Epoxy Bond (IVAS)

Wear Layer: Polyfast P (IVAS)

Finish (protective, if required) Paviglass P (IVAS)

(See product technical information sheet)

SUBSTRATE PREPARATION

Specific tools and preparation techniques are applied according to the underlying substrate (new or old) and its physical format (concrete, stoneware, klinker, etc.)

Proper analysis of the substrate is essential to selecting the right preparation method from among those available:

- *Non destructive preparation of the surfaces using a special triple-head sander with silicon-carbide tools or a sanding machine. This involves removing any loose parts of the surface and, where possible, eliminating surface roughness, thus preparing the substrate for subsequent coating.*
- *Dry blasting of the surface with metal shot of various dimensions, by means of dust trap systems, to decontaminate the substrate and make it ready for subsequent treatment. This treatment also directly removes all those parts of the substrate that are poorly adhering and/or loose.*

- Scarification using mechanical equipment with widia tools to remove those parts of the concrete that are poorly adhering and/or loose or to abrade ceramic enamel.

APPLICATION

Stabiliser / Primer of the substrate

Apply the specific epoxy primer, Epoxy Bond (IVAS), with a roller; the quantity must be adequate to the function.
Recommended use: from 100 to 150 g/m² depending on the absorption capacity of the substrate on which it is applied

Intermediate layer (approximately 24 hours after the substrate has stabilised)

General skimming to render the surfaces uniform and increase their mechanical resistance by applying a layer of Epoxy Bond (IVAS) mortar.

Recommended use: 2 kg/m²/mm of thickness.

Wear layer (approximately 24 hours after stabilising/priming the substrate)

The two-pack product Polifast P can be applied with a high pressure airless bi-mixer — or better still, a unit where dose and flow rate are controlled by a PLC — fit with mixing nozzle without static, self-cleaning mixers. The best performance is achieved by spraying the product at a temperature of 80 °C and pressure of 180 Bar. The unit must have heated tank and piping and in-line heaters.

Recommended use 2 Kg/m²

Finishing layer (at least 2 hours after application of the wear layer)

Apply Paviglass P by carefully mixing the two packs and applying with conventional tools such as roller, brush, airless spraying equipment at a rate of 200 g/m² per coat, application of 2 coats recommended.

Polyurea: PHYSICAL / MECHANICAL PROPERTIES

Specific gravity

1.10 ± 0.05 kg/l for polyurea

1.00 ± 0.05 kg/l for polyurea VK 300

Solids content

100 %

Concrete adhesion > 1.5 Mpa

Application temperature

between +10° C and +35 °C

Curing time at ~ 23°C

Full setting: 2 hours

Properties ~ 23 °C (A+B)

Tensile strength DIN 53504: > 19.0 MPa

Elongation at break DIN 53504: > 440 %

Resistance to tearing ISO 34/1: 70.13

Shore A/D hardness: 98 / 56

Concrete adhesion UNI 8772/6°: > 1.6 MPa

Metal adhesion: > 7.0 MPa

Fibre cement adhesion: > 1.4 MPa

Modulus 100% 7 days 23°C + 14 days 50°C DIN 53504: 9.39

Maximum strain at -20°C: 14.25

Maximum deformation at -20°C: 114%

Resistance to tearing at -20°C ISO 34-1: 112

Chemical resistance*

Acetone	<i>resistant</i>
Hydraulic oil	<i>resistant</i>
Unleaded gasoline	<i>resistant</i>
Hexane	<i>resistant</i>
Methanol	<i>resistant</i>
Gasoline + 5% Methanol	<i>resistant</i>
Diesel fuel	<i>resistant</i>
Sodium hydroxide:	
5%	<i>resistant</i>
10%	<i>resistant</i>
25%	<i>resistant</i>
50%	<i>limitedly resistant</i>
Sulphuric acid:	
5%	<i>resistant</i>
10%	<i>limitedly resistant</i>
Hydrochloric acid:	
5%	<i>resistant</i>
10%	<i>resistant</i>
Acetic acid:	
10%	<i>resistant</i>
Phosphoric acid:	
10%	<i>resistant</i>
Water	<i>resistant</i>
Water 80°C	<i>resistant (tested for 15 days)</i>
Sugary water 10 %	<i>resistant</i>

**Resistant: the product resists the substance but there may be changes, even marked changes, in colour.*

**Limitedly resistant: the contaminating product must be removed promptly.*

N.B. This Technical Information Sheet is compiled to the best of our technical/scientific knowledge. Nevertheless, it is not binding and does not imply that we are responsible, as the conditions of use are outside our control. It is recommended that the product is always checked as being suitable for the specific application.

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