IPA Bauchemische Produkte GmbH
A Stable Solution

IPA POLYSCHICHT® (DOM-L)

Dissipative, Polymer/Silicate Coating system for dome shafts with General building supervision approval

Certification:
IPA Polyschicht® DOM is certified by DIBT (German Institute for Construction engineering) and supervised by TÜV SÜD as a coating system for dome shafts, remote filling shafts, control shafts and transfer shafts.

DIBt authorization No. Z-59.41-510

Product description:
IPA Polyschicht® (DOM-L) is employed for sealing walls, connections and transitions. IPA Polyschicht® (DOM-L) is an approx. 3 mm thick, glass fiber reinforced, crack-bridging laminate coating, based on a hybrid polymer silicate. The coating system consists of a laminate layer which is optimized with a top coating layer or top troweling layer.

Application area:
IPA Polyschicht® (DOM-L) is used to coat the wall surfaces, as well as the connections and transitions of dome shafts. The ability of the coating system to dissipate electrostatic charge enables the storage of flammable liquids.

Mode of action (characteristics):
- IPA Polyschicht® (DOM-L is solvent-free, water vapor diffusible and doesn't contain VOC components.
- Good mechanical properties.
- Very good adhesion to concrete, masonry and steel surfaces
- Heat resistant up to 140°C
- Dissipative
- IPA Polyschicht® (DOM-L) system is able to bridge cracks in concrete according to the DIN EN 14879-3 standard up to 0.4 mm

Working instructions:
Surface:
All substrates consisting of concrete, steel and all IPA concrete maintenance- and repairing mortars

Preparation:
Remove all loose parts and anti-adhesive agents such as oil, grease or other material- and coating residuals up to the sustainable surface, in order to form an optimal adhesive compound. Recommended surface adhesive tensile strength 1,5 N/mm².

For steel:
Standard purity level SA 2 ½ according to ISO 12944-4. The surfaces must be dry and 3 Kelvin above the dew point temperature. Relative humidity must be lower than 80%.

For mineral surfaces:
Surface must be optically dry. For humid surfaces or water seepage insulate and/or pre-treat with IPA Unimörtel Rapid. Treat imperfections or surface roughness with IPA Unimörtel Rapid. In the case of masonry, a primer with IPA Duripal must be applied before troweling with IPA Unimörtel Rapid.

Mixing method*:*
IPA Polyschicht® resin, IPA Polyschicht® hardener and IPA Polyschicht® thickener should be mixed as follow:

- Recommended to use a wing stirrer (LX 300) for mixing
- Under intensive mixing (1200-1500U/min), the hardener should be added slowly and stepwise to the resin.
- The mixture must be agitated at least 3 minutes with a fast running until achieving a homogenous mass.
- then IPA Polyschicht® thickener (max. 25%) should be added within 1 min under intensive mixing until a homogenous mass is achieved.
- Pour the homogeneous mass into a clean mixing container and continue mixing
- The total mixing time is at least 5 min.

Application:
To avoid air infiltration from the substrate, make a thin first coating (primer) and then apply the coating material on to the primer and embed the glass mat in this fresh coat.
Important: The built-in glass mat must be compacted with the laminating roller.
After at least 6 hours, max. 24 hours waiting time, the top coat can be applied with IPA Polyschicht® with max. 25% IPA Polyschicht® thickener).
During and up to 72 hours after working surface temperature should be not lower than + 8° C and not higher than + 25° C, relative air humidity should not exceed 80%. Material temperature should not be lower than + 10° C and not higher than 25° C. During and up to 4-6 hours after working the treated surfaces must be protected from rain, solar irradiation and condensate precipitation.

Dissipative coating:

If a dissipative coating is required, the IPA conductive tape is attached to the 1st cured layer and then the 2nd coat/troweling (conductive top coat) is applied.

Cleaning and disposal
Pre-clean the working tools with clean water. Final cleaning with PU-cleaner. Don't dispose residuals in the canalization. Material residuals, delivery packages must be disposed according to the official disposal norms. Disposal codes in hardened condition: EWC-no. 17 01 01

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Safety at work:
During work please wear protection clothes, protection glasses and protection gloves. During the working process don't smoke, eat or drink! Avoid strong formation of dust. In case of skin contact and splashes in the eyes immediately flush at least for 15 minutes with clean water. It is recommended to keep ready an eye flushing bottle with a sterile solution in order to flush thoroughly. Afterwards immediately consult an oculist. Please respect the security data sheets and the norms of the professional associations about handling of polymer-/silicate coated materials.

Version 2301

Components

Product	***Appearance***	***Delivery form***	***Storage conditions***	***Storage duration***
IPA Polyschicht® K1 (Hardener)	transparent	4,2 kg canister	+5°C to +25°C	6 months
IPA Polyschicht® K2 (Resin)	Black	6,8 kg bucket	+5°C to +25°C	6 months
IPA Polyschicht® thickener	black	5,0 kg bucket	+5°C to +25°C	2 years
E-Glass matte Roving 580 g/m²	white	roll	-	-
Duripal	transparent	25 l canister	+5°C to +25°C	6 months
IPA Unimörtel Rapid	gray	20,0 kg bucket	+5°C to +30°C	6 months
IPA conductive tape	copper	25 m long roll	-	-

Mixing ratios

IPA Polyschicht® Laminate (1st layer)

Component	***Consumption in kg/m²***
IPA Polyschicht® K1 (Hardener)	0,477
IPA Polyschicht® K2 (Resin)	0,773
IPA Polyschicht® thickener	0,250
E-Glass matte Roving 580 g/m²	0,580

IPA Polyschicht® (2nd layer)

Component	***Consumption in kg/m²***
IPA Polyschicht® K1 (Hardener)	0,191
IPA Polyschicht® K2 (Resin)	0,309
IPA Polyschicht® thickener	0,125

Technical data:

Fresh coating or mortar	
Package workability time at 20° C (depending on temperature)	approx. 20-25 minutes
Working temperature	+8° C to +25° C

Mechanical specifications		
Compressive strength	1 day	28 days
	19,8 N/mm²	30,4 N/mm²
Bending tensile strength	1 day	28 days
	7,1 N/mm²	14,2 N/mm²
Adhesive tensile strength	concrete: 28 days ca. 2,9 N/mm² Steel: 28 days ca. 10,0 N/mm²	

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