INDUSTRIAL FACILITIES

Vulmproepox IH

ENVIRONMENTALLY FRIENDLY PRODUCT

WATER-BASED COATING

HEALTHY – ELIMINATION OF HARMFUL EFFECTS ON HUMAN HEALTH

Product description:

Vulmproepox IH is a two-component water-based coating consisting of component A (aqueous dispersion, epoxy resin containing additives, pigments and fillers) and component B (polyamine hardener).

Use:

Coating is applied on concrete surfaces at least 7 days old with a maximum moisture content of 35%, and for uninsulated surfaces. Coatings are very resilient, but also hard and resistant to abrasion. It resists to water, chemicals and detergent solutions. It is useful and suitable particularly in the areas of large industrial buildings, for concrete, cement screeds, epoxy mortars, normal to highly absorbent substrates. Strong mechanical and chemical resistance withstand high loads in warehouses, manufacturing plants, garages and the like. The coating may be applied indoors and outdoors.

Benefits:

- UV stable
- easy maintenance and application
- good covering capacity
- high adhesion strength
- suitable for use indoors as well as outdoors
- resilient and hard surface
- good chemical and mechanical resistance
- good anti-skid properties
- resists penetration of liquids
- adhesive even to a slightly greasy surface
- possibility to achieve a greater thickness in one coating
- very low VOC and emissions
- almost odourless

Test data:

Conformity Certificate EN-13813

Product data:

colour:	RAL according to customer's choice
appearance:	matte, semi-gloss
shelf life:	12 months in original packaging in dry conditions at the temperature 10 – 35 °C

Physical data:

binder content:	15 %	
solids content:	70 %	
water content:	15 %	
flow:	15,9 cm	
hardness:	after 24 hours	60 Shore D
	3 days	70 Shore D
	7 days	78 Shore D
	28 days	82 Shore D

at a relative air humidity of 65 % and temperature of 20 °C

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abrasion resistance:	156 md/1000 cycles
handling time:	45 minutes
density:	
component A:	2,37 g/ml
component B:	1,08 g/ml
component A + B:	2,07 g/ml

Processing temperature:

minimum temperature of the substrate:	5 °C
maximum temperature of the substrate:	30 °C
ideal temperature for processing:	20 °C
maximum relative air humidity:	85 %

Theoretical capacity:

Coating

4 m^2/kg at a thickness of about 250 µm of dry film in 2 – 3 layers (0,25 – 0,3 kg/m^2 per layer depending on the grading of the substrate)

Self-levelling

1,1 – 1,6 kg/m^2 for self-levelling by discharge at a thickness of 1 mm (1,15 kg/m^2 binder + 0,45 kg/m^2 quartz sand)

Application methods:

roller, brush, spray, self-levelling by discharge

Instructions for use:

Impregnation:

Impregnate a dry or wet surface by **Vulmpropex**; the mixture of components A and B are in the ratio 10 : 1 (by weight – 1 kg of component A and 0.1 kg of component B). Mixing of the reactive components takes 2 – 3 minutes, but ends after achieving a homogeneous mixture. Viscosity may be adjusted by the addition of water (15 - 50%) The prepared material is applied by a brush or roller. After 2 – 5 hours, we can apply a second coat.

Coating application (roller, brush, spray):

The mixture of components A and B is in a ratio of 10 : 2 (by weight – 1 kg of component A and 0.2 kg of component B). Mixing of the reactive components takes 2 – 3 minutes, but ends after achieving a homogeneous mixture. Viscosity may be adjusted by the addition of water (10 – 15 %) The coating is applied in two layers.

After 2 – 5 hours, we can apply a second coat.

Self-levelling application (by discharge):

Levelling material is prepared by mixing the components A and B in a ratio of 10 : 2 (by weight – 1 kg of component A and 0.2 kg of component B) with silica sand of thickness from 0.1 to 0.3 mm (as necessary – max. (50%) and by addition of water (15 – 25 %). Thereby prepared material is applied onto the substrate to the desired thickness (1.5 to 3 mm). Discharged material is ruled off by a smoothing trowel or wide trowel and deaerated by a vent roller.

Substrate:

The substrate must be sufficiently coherent and supporting. Surface must be flat, solid, free of dirt and loose particles. It may contain max. of 35% humidity, which should be measured by a hygrometer. The coating can be applied on slightly oily surfaces. Surface must be dusted and without rough particles, preferably cleaned by pressurized water. Degreasing is not necessary.

Time data for application:

processability of the mixed material:	approx. 45 minutes
dry to touch and re-coating interval:	approx. 2 hours
walkable:	24 hours
fully loadable:	65 hours

at a relative air humidity of 65 % and temperature of 20 °C

Cleaning of tools:

Immediately after use, with water.

Resistance:

- withstands high mechanical loads
- resistant to chemicals, solvents, detergents and cleaners
- resistant to heat of up to 140 °C (short-term), does not change characteristics at 100 °C

Safety:

Vulmproepox IH – when handling, proceed in accordance with the general safety measures, follow the safety instructions on the packaging labels and on safety data sheets. Data, specifications, directions and recommendations given in this technical data sheet are based on experience gained in modeling of supposed ways of applications, or under specially defined conditions. Their accuracy, completeness or appropriateness under the actual conditions of any intended use is not guaranteed and must be determined by the user. The manufacturer and distributor are not responsible for the results achieved, loss, direct or consequential damages arising from failure to comply with the recommended use of the product, which go beyond the conditions herein.

Tests:

Property	Declared value or class	Number of test report and laboratory reference
Reaction to fire (NO)	class F – for all screeds based on epoxy resins	declaration
Abrasion resistance according to BCA (NO) [mm]	class AR 0,5 (depth of the groove max. 10 µm)	Test Report no. 90-13-0014, TSÚS, branch Tatranská. Štrba 17.01.2013
Adhesion (NO) [MPa]	class B2,0 (adhesion min. 2,0 MPa)	Test Report no. 90-13-0014, TSÚS, branch Tatranská. Štrba 17.01.2013
Impact resistance (NO) [Nm]	IR min. 10 Nm	Test Report no. 90-13-0014, TSÚS, branch Tatranská. Štrba 17.01.2013
Compressive strength (NO) [MPa]	class C20 (compressive strength min. 40 MPa)	Test Report no. 90-13-0014, TSÚS, branch Tatranská. Štrba 17.01.2013
Tensile strength in bending (NO) [MPa]	class F7 (tensile strength in bending min. 7 MPa)	Test Report no. 90-13-0014, TSÚS, branch Tatranská. Štrba 17.01.2013