DECORATIVE
INDUSTRY
GARDEN

EPUFLOORING
INDUSTRY

EPU CONCRET

POLIURETHANE – CEMENT COATING CERTIFIED BY HACCP

In compliance with the requirements of the 1504-2 EUROPEAN STANDARD: product for chemical resistance 6.1 (C).

Description

CONCRET is the highest durability tree – component technology of polyurethane resins and cement.

Features

- Product in compliance with HACCP instructions: certificate number I-PE-863-ITA-1-RG-01.
- Rapid curing even at relatively low temperatures.
- Matt finish.
- Excellent chemical resistance
- Good mechanical resistance
- Available in the antistatic and conductive version
- Application temperature from +5°C to +35°C
- Resistance to temperature from -20°C to +90°C, for limited periods up to +150°C in air.

Fields of application

CONCRET is used, wherever very high resistance to mechanical and chemical loads is required, such as warehouses, food industry, laboratories, and cold stores. etc.

Application guidelines

CONCRET can be applied by roller, brush, steel trowel, distributing the product uniformly. Immediately after the application use the spiked roller many times.

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a) Substrate Preparation

Surface must be clean, grind and dry. Remove dust, laitance, grease, curing compounds, Preparation bond inhibiting impregnations, waxes and any other contaminants. All projections, rough spots, etc. should be dressed off to achieve a level surface prior to the application. Concrete - Should be cleaned and prepared to achieve a laitance-free and contaminant-free, open textured surface by shot blasting or equivalent mechanical means (CSP-3 to CSP-4 as per ICRI guidelines). Sweep and vacuum any remaining dirt and dust with a wet/dry vacuum. Removing residual dust will help ensure a tenacious bond between the primer and substrate. Whenever “shot-blasting” is utilized, be careful to leave concrete with a uniform texture. “Over-blasting” will result in reduced coverage rates of the primer and/or subsequent topcoats. The “shotblast” pattern may show through the last coat, known as “tracking”. The compressive strength of the concrete substrate should be at least 3,500 psi (24 MPa) at 28 days and at least 215 psi (1.5 MPa) in tension at the time of application.
Before the application of **EPU CONCRET,** in proximity of drain covers, side-walls, passages from one room to another etc. some custs will have to be done on the flooring, to allow the product to mechanically “cling” on it.

b) Preparation of the product

For bulk packaging, when not mixing full units, each component must be pre-mixed separately to ensure product uniformity.

Premix each component separately. Empty Component B in the correct mix ratio into Component A. Mix the combined components for at least 3 minutes using a low speed drill (300 - 450 rpm) and Exomixer or Jiffy type paddle suited to the volume of the mixing container to minimize entrapped air. Pour component C while still stirring and mix to complete homogenization for about five minutes, until a mixture without lumps is obtain. Be careful not to introduce any air bubbles while mixing. Make sure the contents are completely mixed to avoid any weak or partially cured spots in the coating. During the mixing operation, scrape down the sides and bottom of the container with a flat or straight edge trowel at least once to ensure complete mixing.
It is important to remember that this coating has a limited pot life, thus mix only the quantity that can be used within its pot life. Do not leave the mix in the container too long because it will shorten its pot life.

c) Application

CONCRET TOP can be applied in one or two coats, depending on the desired finish, with a consumption of 300 – 600 g/m².

Handling and storage

CONCRET can be stored for 12 months in its original packaging in a dry place at a temperature between +5°C and +35°C.
Wear protective equipment (gloves/safety glasses/clothing) to prevent contact with skin and eyes. Keep container closed in a cool dry place. Wash skin thoroughly with soap and water after use. Use with adequate, general and local, exhaust ventilation. In absence of adequate ventilation, use a properly fitted NIOSH respirator. Remove contaminated clothing. Launder before reuse.

PRODUCT FOR PROFESSIONAL USE.

HACCP INTERNATIONAL FOOD SAFETY PROGRAMMEN CERTIFICATION

TECHNICAL DATA			
COLOUR	RAL		STANDARDS
POT LIFE AT 22°C	20 MINUT		EN ISO 9514
DENSITY	1,90 – 2,00 +/- 0,05 kg/l		UNI EN ISO 2811-1
THEORETICAL CONSUMPTION	**EPU CONCRET SL**	6kg/m²	-
	EPU CONCRET MD	9kg/m²	
	EPU CONCRET DL	12-15 kg/m²	
	EPU CONCRET HF	12-18kg/m²	
THEORETICAL THICKNESS	**EPU CONCRET SL**	3-4mm	-
	EPU CONCRET MD	4-6mm	
	EPU CONCRET DL	6-7mm	
	EPU CONCRET HF	6-9mm	
COMPRESSIVE STTRENGTH	>50 MPa		UNI EN 13892-2
NON-VOLATILE-MATTER CONTENT	>99,9 %		EN ISO 3251
IMPACT RESISTANCE	>10 N·m		UNI EN ISO 6272-1
WEAR RESISTANCE – BCA	<30µm		UN EN 13892-4
BOND STRENGTH	>3,0 MPa		UNI EN 13892-8
FLEXURAL STRENGTH	>15 MPa		UNI EN 13892-2
MODULUS OF ELASTICITY	1530 MPa		EN 13412
RESISTANCE TO TEMPERATURE SHOCK	>3,5 MPa		EN 13687-5
LIQUID WATER PERMEABILITY	w < 0,1 kg/m² x h½		EN 1062-3
ELECTRICAL RESISTANCE*	R < 10^6 Ω		UNI EN 1081
RESISTANCE TO SEVERAL CHEMICAL ATTACK	Sulphuric acid 20% - CLASS II Sodium hydroxide 20% - CLASS II Sodium chloride 20% - CLASS II Lactic acid 10% - CLASS II		UNI EN 13529
CURING Light traffic / Complete curing	6-8h / 5-7days		77°F / 25°C

*Only conductive type

CE

PERFORMACES IN COMPLIANCE WITH CERTIFICATION CE EN 1504-2

Product type 3202	**DoP 141**

Characteristics	**Product performance**	**Test Method**
Reaction to fire	F	EN 13501-1
CO_2 permeability	NPD	EN 1062-6
Liquid water permeability	w < 0,1 kg/m² x h½	EN ISO 1062-3
Water vapour permeability	NPD	EN ISO 7783-2
Bond strength by (pull-off)	NPD	EN 1542
Crack bridging	NPD	EN 1062-7
Temperature shock	>2,0 N/mm²	EN 13687-5
Impact resistance	Class II	EN ISO 6272-1
Abrasion resistance	NPD	EN ISO 5470-1
Hazardous substances	The hardened product does not release hazardous substances	
Linear shrinkage	NPD	EN 12617-1
Resistance to severe chemical attack	CR10 (class II) CR11 (class II) CR12 (class II) Lactic acid (class II)	EN 13529
Coefficient of thermal expansion	NPD	EN 1770
Cross-cut test	NPD	EN ISO 2409
Resistance to liquids	NPD	EN ISO 2812-1
Slip / skid resistance	NPD	EN 13036-4
Exposition to artificial atmospheric agents	NPD	EN 1062-11
Electrical resistance	NPD	EN 1081
Compressive strength	NPD	EN 12190
Compatibility on wet concrete	NPD	EN 13578

CR10: sulphuric acid at 20%
CR11: sodium hydroxide at 20%
CR12: sodium chloride at 20%

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