Cipothane SL 1000

4 component, self smoothening EPU flooring

Description

A four component, self smoothing floor topping, Cipothane SL 1000 is based on epoxy resin fused with urethane linkages. The EPU system is supplied in pre weighed packs, ready to mix and use, which provides a hard wearing, chemical resistant, flexible, impervious and easy to clean seamless flooring.

Uses

Cipothane SL 1000 is recommended for floor toppings in :

- Food industry
- Pharma
- Health Care
- Automotive
- Breweries
- Aircraft Hangars

Key features

- Excellent adhesion
- Excellent self levelling properties
- Excellent chemical resistance
- Good abrasion resistance
- Moderate flexibility
- Good impact resistance

Certified

Properties

Type	:	EPU	Mixing ratio	:	Pre-weighed packs
Finish	:	Smoth glossy	Colour	:	Available in RAL shades
Pot life @ 27^{0}C ASTM D 2471	:	≥ 55 minutes	Recommended WFT ASTM D 4414	:	1000 microns
Drying time ASTM D 1640 Surface dry Tack free dry Hard dry	: : :	≥ 3 hrs ≥ 7 hrs ≥ 24 hrs	Recommended DFT ASTM D 7091	:	1000 microns
Recommended thinner	:	PUT 502 (Clean up)	Shelf life	:	12 months in the unopened container

Performance data

The mandatory performance parameters as per FeFRA and EFNARC guidelines for resin flooring system

Other mechanical properties

Pull of adhesion test ASTM D 7234-2022	:	≥ 2 MPa for M20 grade concrete / Concrete failure	Scratch resistance IS 101 (Part 5 / Sec 2)	:	Pass (2 kg)
Impact resistance ASTM D 2794 1993	:	9.81 Nm (1 kg)	Flexural strength ASTM D 790-2017	:	5 MPa
			Tensile strength ASTM D 638-2014	:	5 N/mm^2
Abrasion resistance ASTM D 4060-2019 CS 17, 1 kg 1000 cycles	:	Maximum 28 mg loss	Elongation ASTM D 638-2014	:	5.5 %
			Shore D ASTM D2240-2015	:	70
Slip resistance (dry condition) EN 13036-4-2011		38 - 40 PTV - low slip potential	Flame spread EN ISO 11925-2	:	Class B$_{fl}$ s1
			Critical flux EN ISO 9239-1	:	12 kW/m^2

Note : The typical physical properties given above are derived from testing in a controlled laboratory environment. Results derived from testing field-applied samples may vary, dependent on actual site conditions

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Chemical resistance

Excellent resistance is observed against distilled water, detergent solutions, alkalies and acids. Chemical spillages should always be wiped up as quickly as possible and not be allowed to concentrate up by evaporation. The data on the list of the chemicals found resistant to this product during our lab study is available on request.

Application instruction:

Surface preparation

The long-term durability of the applied Cipothane SL 1000 is dependent upon the adhesive bond achieved between the flooring material and substrate. It is most important therefore, that substrate surfaces are correctly prepared prior to application. Ensure that the residual moisture level in the concrete is below 5%. All substrates should be sound and free from contamination such as mortar and paint splashes, curing compound residue, oil, grease. Excessive laitance should be removed by light mechanical scrabbling, grinding or grit blasting. Oil and grease contamination must be completely removed by grinding down to sound, clean concrete. Alternatively, blasting techniques can be used to provide the required substrate. All concrete surface to be prepared using shot blasting machine or grinding to achieve CSP 3-4.

Priming

Cipoxy 17 Resin and Cipoxy 17 Hardener is supplied seperately in 20 lts packing. Mix Resin and Hardener in equal proportions. Solvent or thinners should not be added. A forced action mixer with a paddle fitted into a heavy duty, slow speed electric hand drill is recommended for mixing. The material is poured onto the prepared substrate and spread to the required thickness with a roller. Allow to cure overnight. Porous floors may require two coats of primer. Overcoating window time should not exceed 24 hours. Incase overcoating window exceeds 24 hours, recoating of primer is necessary.

Mixing & Application

Cipothane SL 1000 is supplied in pre-weighed packs ready to use on site. Solvent or thinners should not be added. A forced action mixer with a paddle fitted into a heavy duty, slow speed electric hand drill is recommended for mixing. The material is poured onto the primed substrate and spread to the required thickness with a notched trowel. Deaerate the layer by a spike roller and allow to cure for 24 hours.

Packaging and Theoretical Coverage

Cipothane SL 1000	:	Pre-weighed set of 15.961 kg (clear set)	:	1 set covers 10 sqm @ 1mm
EPI - pigment for top coat	:	Available in 400 gms packing to be mixed with Cipothane SL 1000		
Cipoxy 17/Cipoxy 18	:	Resin and Hardener available in 20 litre packing	:	1 litre covers 5 sqm @ 200 microns

Storage and handling

The product should be stored in accordance with national regulations. It should be kept in a cool, well ventilated area, away from heat, direct sunlight, sparks and children. Handle with care. Ideal temperature for storage of the material is 25°C to 30°C, in a covered shed.

Health and safety precautions

Please refer to MSDS. Observe reasonable care and employ ordinary hygienic principles such as washing the hands with soap and water before eating or smoking. It is recommended to wear gloves, goggles and nose masks while application. Incase of splashes on the skin, dampen the cloth with thinner PUT 503 and wipe the hands with the cloth. Wash then with soap.

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Do's

Clean regularly
Remove aggressive chemical spillage immediately
Maintain wheel for proper rolling, should not getdragged.
Handle heavy material gently and cautiously
Clean any oil or any liquid which may cause accident during people's movement

Don't

Drag any sharp and heavy object
Expose to fire or welding spark
Expose to very high temperature than recommended by Manufacturer
Drop down and heavy material on the floor
Expose to highly corrosive chemicals

Limitations

Self-smoothening is a term used in the flooring industry to describe a composition which after being spread to a uniform layer of appropriate thickness, develops a smooth, resin-rich surface. This self-smoothing action is very localized and does not eradicate irregularities of level present in the original substrate.

It is not compatible for application over asphalt, unmodified sand-cement screeds or PVC tiles and sheets. Cipothane SL 1000 laid floor will be scratched due to nails or sharp objects protruding from machinery, packings, or trolleys moving on the floor. Presence of sand will also cause abrasion.

The product is not advised to be applied below 15°C as the flow reduces. While applying the product above 35°C, there can be a problem of low pot life etc., and it will be difficult to apply the material. Cured product is not suitable for exposure to sub-zero temperatures and above 65°C. When there is not enough material in a given area, roller marks caused due to spiked rolling may not close which will result in an undesirable finish. The product is not suitable for areas exposed to direct sunlight.

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