

Cipoxy SL 500

4 Component epoxy self levelling flooring

Description

Cipoxy SL 500 is a self levelling floor topping system based on pure liquid epoxy resin cured with a modified grade of cyclo aliphatic amine. The system is supplied in pre-weighted packs, ready to mix and use.

Uses

For floor topping

- Pharma
- Health Care
- Automotive
- Light engineering
- Breweries
- Parking decks

Key features

- Excellent adhesion
- Excellent self levelling properties
- Excellent chemical resistance
- Good abrasion resistance



Certified

Properties

Type	: Epoxy cyclo-aliphatic amine	Mixing ratio	: Pre-weighted packs
Finish	: Smooth glossy	Colour	: Available in RAL shades
Pot life @ 27°C ASTM D 2471	: ≥ 60 minutes	Recommended WFT ASTM D 4414	: 500 microns
Drying time ASTM D 1640		Recommended DFT ASTM D 7091	: 500 microns
Surface dry	: ≥ 3 hrs		
Tack free dry	: ≥ 8 hrs		
Hard dry	: ≥ 24 hrs		
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

Pull of adhesion test ASTM D 7234-2022	: ≥ 2 MPa for M20 grade concrete / Concrete failure
Impact resistance ASTM D 2794-1993	: 7.84 N.m
Abrasion resistance ASTM D 4060-2019 CS 17, 1 kg 1000 cycles	: Maximum 50 mg loss
Slip resistance - dry condition EN 13036-4-2011	45 - 50 PTV - low slip potential

Other mechanical properties

Flexural strength ASTM D 790-2017	: 7 N / mm ²
Tensile strength ASTM D 638-2014	: 13 N / mm ²
Shore D ASTM D2240-2015	: 46

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, alkalis 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 Cipoxy SL 500 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 scrubbing, 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

All substrates to be treated with Cipoxy SL 500, should be primed with Cipoxy 17 /18. Primer to be mixed in the proportions supplied by adding the entire contents of hardener can to the base can. Once mixed the material should be immediately applied in a thin, continuous film using stiff brushes or rollers. Over application and puddles should be avoided. Porous floors may require two coats of Cipoxy 17 / 18. Primer should be allowed to become tack free prior to application. Coverage will depend on the texture and porosity of the substrate and also the application thickness. Overcoating window time should not exceed 24 hours. In case overcoating window exceeds 24 hours, recoating of primer is necessary.

Mixing & Application

Cipoxy SL 500 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

Cipoxy SL 500	: Pre-weighed set of 12.551 kg (clear set)	: 1 set cover 17.5 sqm @ 0.5mm
EPI - pigment for top coat	: Available in 750 gms packing to be mixed with Cipoxy SL 500	
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. In case 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 get dragged. Nylon / teflon wheel trolleys are recommended
- Handle heavy material gently and cautiously
- Immediately clean spillage of any oil or fatty liquid which may cause accident during people's movement

Don't

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

Limitations

Self-smoothing 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. Cipoxy SL 500 coating 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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