

Floorkote SL 1000

Polyurethane self levelling flooring

Description

Floorkote SL 1000 is a three component aromatic polyurethane flooring system preferred over the conventional epoxy floorings, because of its superior physical and mechanical properties. Floorkote SL 1000 is a solvent free, flexible urethane self levelling system designed to provide an extremely abrasion resistant and resilient floor topping. Floorkote SL 1000 is generally applied at a thickness of 1mm.

Uses

- Automobile industries
- Light and heavy engineering units
- Hangars
- Chemical and fertilizer plants
- Car park decks

Key features

- Solvent free : no toxic fumes
- Fast setting
- High abrasion resistance
- High impact and chemical resistance
- Flexible to cover concrete cracks
- More durable than epoxies



Certified

Properties

Type	: Aromatic polyurethane	Mixing ratio	: Pre-weighed packs
Finish	: Semi Glossy	Colour	: Available in RAL shades
Pot life @ 27°C ASTM D 2471	: ≥ 30 minutes	Recommended WFT ASTM D 4414	: 1000 microns
Drying time ASTM D 1640		Recommended DFT ASTM D 7091	: 1000 microns
Surface dry	: ≥ 1.5 hrs		
Tack free dry	: ≥ 5 hrs		
Hard dry	: ≥ 24 hrs		
Recommended thinner	: PUT 502 (Clean up)	Shelf life	: 6 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	Scratch resistance IS 101 (Part 5 / Sec 2)	: Pass (3 kg)
Impact resistance IS 101 (Part 5 / Sec 3)	: Pass (1.8 kg - 40 cm)	Shore D ASTM D2240-2015	: 55
Abrasion resistance ASTM D 4060-2019 CS 17, 1 kg 1000 cycles	: 47 mg loss	Slip resistance - dry condition EN 13036-4-2011	: 40-45 (moderate risk of slip)

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 available on request.

Directions to use

Surface preparation

The long-term durability of the applied Floorkote 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, or 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 Floorkote SL 1000 coating, should be primed with Floorprime. Primer should be mixed in the proportions supplied by adding the entire contents of hardener can to the base can. Once mixed the Floorprime 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 Floorprime. It 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.

Mixing & Application

Floorkote 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

Floorkote SL 1000	:	Pre-weighed set of 7.76 kg (clear set)	:	1 set cover 5 sqm @ 1mm
Floorprime	:	Resin and Hardener available in 20 litre packing	:	1 kg covers 7 sqm @ 150 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. Mix resin and hardener as per ratio. Use the mix solution within the pot life time.

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 and water. Dried film is non toxic. In case of contact with eyes, rinse with plenty of water and seek medical advice. In case of continuous exposure to vapour, the applicator should be immediately moved to get fresh air. The disposal of excess or waste material should be carried out in accordance with the local legislations.

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Do's

- Clean regularly
- Remove aggressive chemical spillage immediately
- Maintain wheel for proper rolling, should not get dragged.
- 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-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 most important, therefore, that adequate surface preparation and repair is undertaken prior to application. It is not compatible for application over asphalt, unmodified sand-cement screeds or PVC tiles and sheets. Floorkote SL 1000 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.