

Floorkote 4K

Solvent-free polyurethane carpark coating

Description

Floorkote 4K is a four component, solvent-free, polyurethane coating recommended as carpark floorings. Floorkote 4K consists of resin, hardener, aggregates and EPI. It is characterised by excellent wear resistance, crack bridging ability and fast curing.

Uses

- As high build coating on floors and decks
- As anti skid floor coating alongwith the broadcast of silica sand

Key feature

- Solvent free
- High abrasion resistance
- Flexible enough to have crack bridging ability
- Fast curing



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Properties

Type	: Aromatic PU	Mixing ratio	: Pre-weighed packs
Finish	: Semi Glossy, slightly textured.	Colour	: Desired shade
Pot life @ 27°C ASTM D 2471	: ≥ 65 minutes	Solids content by wt ASTM D 2369	: 96%
Drying time ASTM D 1640		Recommended DFT ASTM D 7091	: 300 - 600 microns
Surface dry	: ≥ 75 minutes	Application	: By roller / trowel
Tack free dry	: ≥ 3.3 hrs	Shelf life	: 6 months in the unopened container
Hard dry	: ≥ 24 hrs		
Recommended thinner	: PUT 502 (Clean up)		

Performance parameters

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	Tensile strength ASTM D 638	: 10 MPa
Impact resistance ASTM D 2794-1993	: 9.81 N.m (Falling weight : 1 kg)	Elongation ASTM D 638	: 52%
Abrasion resistance ASTM D 4060-2019		Crack bridging ability EN 1062-7-2004(A)	: 1.84 mm
CS 17, 1 kg 1000 cycles	: Max 24 mg loss	Shore D ASTM D 2240	: 38
Pendulum test - slip resistance EN 13036-4-2011	45-50 PTV - low slip potential	Resistance to spread of Flame EN ISO 11925-2	: Class B _{fl} s1
		Critical flux EN ISO 9239-1	: 11 kW/mm 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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Standard kit of Floorkote 4K and coverage

- Resin : 5.0 kgs / Hardener : 2.3 kgs / FQ 2 aggregates : 2.6 kgs / EPI : 500 gms
- 1 set covers 15 sqm at 500 microns

APPLICATION INSTRUCTIONS

Surface preparation

The long-term durability of the applied FLOORKOTE 4K coating 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.

Priming

Prepared substrates to be treated with Epoxy / PU primer. The Primer should be mixed in the proportions specified, by adding the entire contents of hardener can to the base can. The mixed 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 primer. It should be allowed to become tack free prior to application. Primer coverage will depend on the texture and porosity of the substrate and the application thickness. Broadcast DF (150 / 200 / 300) anti-slip grains evenly on the primed area during tacky state and allow to cure overnight. Remove unstuck grains on next day.

Mixing & Application

FLOORKOTE 4K is supplied in pre-weighted kits. Unpack resin and pour into mixing bowl add EPI and mix material slowly for 30 sec. then add hardener and aggregated to the bowl under slow speed agitation. Mixing is continued for 5 minutes and then apply by roller or squeeze. Allow to cure overnight. Allow trafficking after 48 hrs.

Limitations

It is not compatible for application over asphalt, unmodified sand-cement screed or PVC tiles and sheets. Floorkote 4K coated 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.

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

Packaging and shelf life

Floorkote 4K - Clear is available in 9.9 kg set packing and has a maximum shelf life of 6 months in the unopened container.

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. Mix resin and hardener as per the ratio. Use the mix solution within the pot life time.

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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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