Cipothane 4K

4 Component PU modified for high abrasion flooring

Description

Cipothane 4K is a four component, solvent-free, PU based coating system recommended for car parks, consisting of resin, hardener, aggregates and epi. Cipothane 4K is PU modified coating with good flexibility for crack bridging ability, excellent toughness and wear resistance.

Uses

Key feature

- Car park coating for intermediate decks, and basements floors.
- Solvent free
- High abrasion resistance
- Moderate flexibility
- Anti slip



EFNARC GUIDELINE

TYPE 3

Properties

Type : PU based		Mixing ratio	: Pre-weighed packs
Finish : Glossy	Colour	: Desired shade	
Pot life @ 27ºC ASTM D 2471	: 40- 50 minutes	Solids content by wt ASTM D 2369	: 98%
Drying time ASTM D 1640	: ≥ 120 minutes	Recommended DFT ASTM D 7091	: 300 - 600 microns
Surface dry Tack free dry Hard dry	: ≥ 7 hrs : ≥ 24 hrs	Application	: By roller / brush
Recommended thinner	: PUT 502 (Clean up)	Shelf life	: 6 months in the unopened container

Performance data

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

Pull of adhesion test	: ≥ 2 MPa for M20 grade
ASTM D 7234-2022	concrete / Concrete failure
Impact resistance	:Pass
ASTM D 2794-1993	(1.8 kg - 100 cm)
Abrasion resistance ASTM D 4060-2019 CS 17, 1 kg 1000 cycles	: Maximum 40 mg loss
Slip resistance (Pendulum test) BS 8204	: 68 PTV - very low slip potential

Other mechanical properties

Tensile strength ASTM D 638	:	8 MPa
Elongation ASTM D 638	:	5%
Crack bridging ability (sand induced) EN 1062-7-2004(A)	:	0.8 mm
Shore D Hardness ASTM D 2240	:	77
Resistance to spread of Flame :EN ISO 11925-2	:	B _{fi} s1
Scratch resistance IS 101 Part -5 / Sec-2	:	Pass - 4 kg (No Rupture)
Critical flux EN ISO 9239-1	:	10 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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APPLICATION INSTRUCTIONS

Surface preparation

The long-term durability of the applied Cipothane 4K 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 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.

Priming

Cipoxy 17 / 18 Resin and Cipoxy 17/18 Hardener is supplied seperately in 20 Its 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 4K is supplied in pre-weighed packs ready to use on site. Solvent or thinners should not be added. Mix all the components of Cipothane 4K in a clean bowl and stir for 2-3 minutes using slow speed mixer. The material is poured over broadcasted surface and spread to the desired thickness by using plain roller. Allow to cure for 24 hours.

Packaging and coverage

Cipothane 4K EPI	Pre-weighed set of 22.8 kgsPre-weighed set of 0.8 kgs	:	1 Ltr covers 1.9 sq.m @ 500 micron thickness.
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.

Do's	Don't	
Clean regularly	Drag any sharp and heavy object	
Remove aggressive chemical spillage immediately	Expose to fire or welding spark	
Maintain wheel for proper rolling, should not getdragged.	Expose to very high temperature than recommended by Manufacturer	
Handle heavy material gently and cautiously		
Clean any oil or any liquid which may cause accident	Drop down and heavy material on the floor	
during people's movement	Expose to highly corrosive chemicals	

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.



Limitations

It is not compatible for application over asphalt, unmodified sand-cement screeds or PVC tiles and sheets. Cipothane 4K 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, here 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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