

FK 111 M

2 component, highly abrasion resistant PU floor coating

Description

FK 111 M is a two component solvented aromatic polyurethane based, high abrasion resistance, roll-on floor coating for interior applications. The finished floor is matt in finish and available in RAL shades.

Uses

Recommended to be used as :

- Hard wearing top coat for floors where high abrasion resistance is needed
- In light and heavy engineering industries
- Maintenance coating over existing epoxy flooring and for chemical spillage areas

Key features

- Fast curing
- Excellent abrasion & chemical resistance
- Excellent bond on epoxy and EPU undercoats



Approved

Properties

| | | | |
|--------------------------------|-------------------------|--------------------------------|--------------------------------------|
| Type | : Aromatic polyurethane | Mixing ratio | : 2 : 1 by volume |
| Finish | : Matt | Colour | : Desired shade |
| Pot life @ 27°C ASTM D 2471 | : 60-80 minutes | Volume Solids ASTM D 2697 | : 56% |
| Drying time ASTM D 1640 | | Recommended DFT ASTM D 7091 | : 100 microns |
| Surface dry | : ≥ 25 minutes | Application | : By roller / brush |
| Tack free dry | : ≥ 4 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 or Concrete failure |
| Abrasion resistance ASTM D 4060-2019 CS 17, 1 kg, 1000 cycles | : Maximum 24 mg loss |
| Pendulum test Slip resistance EN 13036-4-2011 | : 40 - 45 PTV - low slip potential |

Other mechanical properties

| | |
|--------------------------------|----------|
| Tensile strength ASTM D 638 | : 20 MPa |
| Elongation ASTM D 638 | : 3% |

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

FK 111 M

2 component, highly abrasion resistant PU floor coating

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.

Directions to use

Surface preparation

The long-term durability of the applied FK 111 M 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 achieve required concrete surface profile between 2-3.

Surface preparation on existing resin topping

Prepare the surface by mechanical abrading using diamond tip grinding machine similar to Blastrac BG-250 E or equivalent. No priming is required to overcoat on existing resin topping.

Priming

Concrete substrates to be treated with FK 111 M coating, should be primed with Cipoxy 17/18 primer. The primer should 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. Cipoxy 17/18 primer should be allowed to become tack free prior to application. Primer 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

FK 111 M Resin and Hardener is supplied separately in 20 litre packs. Mix the same in the recommended ratio of 2:1 by volume. 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 painting roller and allow to cure for 4 hours at 27 degree C before applying second coat. In case overcoating time exceed 8 hours, abrade the surface using diamond tip grinding machine before application of subsequent coating.

Packaging & Coverage

| | | | | |
|----------------|---|--|---|---|
| FK 111 M | : | Resin and Hardener available in 5 & 20 litre packing | : | 1 litre covers 6 sqm @ 100 microns in one coat. 2 coats required. |
| Cipoxy 17 / 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. It contains inflammable solvents. Handle with care. Mix resin and hardener as per the ratio. Use the mix solution within the pot life time. 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 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.

FK 111 M

2 component, highly abrasion resistant PU floor coating

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

It is not compatible for application over asphalt, unmodified sand-cement screeds or PVC tiles and sheets. FK 111 M 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.

Other Products Categories available

Dr.Cipy brings you the widest range of Flooring Systems

