

Cicofloor®FS-50

Epoxy Protective Floor Coating

DESCRIPTION

Cicofloor®FS-50 is a high build solvent free epoxy coating system specially formulated to be abrasion and chemical resistant. It can be applied as a smooth coating or anti-skid multi thickness epoxy flooring system.

USES

- Indoor car parks.
- Industrial hard-wearing flooring and workshops.
- Chemical industries flooring.
- Vehicle ramps.

ADVANTAGES

- Solvent free.
- High abrasion and slip resistant surface.
- Surface anti-slip roughness control by adding or broadcasting Cicogrip® on the surface if needed.
- Can be applied for a wide range of thicknesses. (see system coverage table)
- Resistant to a wide range of industrial chemicals, and fuels.
- Hygienic, anti-bacterial, and fungus growth.
- Waterproof.
- Grey color, other colors available on request.
- Anti-carbonation and stops chloride ion diffusion.
- Odorless.
- Suitable for hot climates.

PACKAGING

7, 20, 28 Kg set.

Cicogrip - Anti slip Grain pack 25 Kg.

SHELF LIFE & STORAGE

12 months storage life if stored in its original unopened containers under a dry and shaded place in a temperature from 5°C to 35°C.

TECHNICAL PROPERTIES

Form	Liquid
Color	standard colors
Solid content by weight	100%
Mixed Density (ASTM D1475) @ 25°C	1.60±0.05 Kg/ltr
Pot life @ 25°C	40±3 min.
Touch dry @ 25°C	7 hrs.±10 min.
Overcoat time @ 25°C	12-36 hrs.
Full cure (ASTM D1640) @ 25°C	7 days
Compressive strength (ASTM C579)	≥70 N/mm ²
Adhesion to concrete (ASTM D7234)	>1.5 N/mm ² (concrete failure)
Water absorption (ASTM C413)	<0.037%
Shore D Hardness (ASTM D2240)	≥85
Tensile strength (ASTM D2370)	21±1 N/mm ²
Flexural strength (ASTM C580)	41±1 N/mm ²
Abrasion resistance (ASTM D4060)	≤100 mg/1000 cycles (C10 wheels)
Impact resistance (ASTM D2794)	≥10 joules
Coverage @ 100-micron DFT	~0.159 kg/m ²

CHEMICAL RESISTANCE

The fully cured Cicofloor®FS-50 meets the requirements of MPI#77 and is resistant to:

- Hydrochloric acid (HCl) 50%
- Sulphuric acid (H₂SO₄) 50%
- Phosphoric acid (H₃PO₄) 20%
- Sodium hydroxide 50%
- Acetic acid 30%

- Ammonia 30%
- Saltwater
- Citric acid 30%
- Soda solution (saturated) (Na₂CO₃)
- Lactic acid 40%
- Kerosene
- Gasoline
- Chlorine
- Nitric acid (HNO₃) 40%
- Formic acid 40%
- Alum at 60°C
- Detergent

APPLICATION INSTRUCTIONS

Surface Preparation

Cicofloor®FS-50 is applied on sound, clean, and dry substrates to achieve maximum adhesion between Cicofloor®FS-50 and substrate. Concrete floors should have a compressive strength of not less than 25 MPa. Laitance, oil, grease, or any fatty contamination should be removed using either Cicosurface®Degreaser, sandblasting, or steam cleaning. Any cracks, grooves, and holes should be filled first with Cicomortar®FX or Cicomortar®FC. All steel substrates should be free from dirt, oil, grease, and blast cleaned to Sa 2½ according to EN ISO 12944, part 4.

Mixing

Stir the base separately. The entire contents of the smaller can (hardener) can be poured into the base container and the materials should be mixed for at least one minute by mechanical mixer using a slow or medium speed mixing drill. Insufficient mixing may lead to color variation.

Priming

If the substrate is nonporous or surface activated, using a primer is not required (for roller coating system only). Apply one coat of Cicoprime®10. Ensure that the surface to be primed is clean, dry, and free from oil, grease, or other contamination.

Application

Smooth Surface Application (Roller Coat)

Transfer the mixed material into a suitable container for application. Apply the material using a short pile roller or a soft hairbrush to the required film thickness. It's recommended to achieve two coats within 24 hours to have the best results.

Anti-Slip Surface Application (Broadcast)

The first coat should be dressed with the chosen Cicogrip® [anti-slip grains]. The grain can be broadcast in a slightly random dressing to provide a less dense finish. After the first coat has reached the initial cure, the excess aggregate should be removed from the surface. Apply the topcoat with a medium texture roller, care should be taken to ensure that a continuous film is achieved, and all grains are completely covered and coated by the epoxy mixture.

Available Cicogrip® [Anti-slip grain] sizes are:

- No. 1: 0.00 – 0.50 mm
- No. 2: 0.00 – 1.00 mm
- No. 3: 0.70 – 1.20 mm
- No. 4: 1.00 – 2.00 mm

LIMITATION

Don't apply Cicofloor®FS-50 if:

- The temperature of the surface is below 5°C or over 40°C.
- The flooring concrete compressive strength is less than 25 MPa.
- The flooring concrete moisture content is more than 4%, otherwise, Cicofloor®WEP or Cicoprime®WEP could be used as a moisture barrier first.

CLEANING

Clean all tools and application equipment with Cicosolvent® immediately after use. Hardened and cured material can only be removed mechanically.

For more details, please review our Technical Guide for Flooring System

PRECAUTIONS

Health And Safety

Cicofloor®FS-50 should not be swallowed or allowed to come into contact with skin or eyes. Suitable protective goggles and gloves should be worn. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. When contact with the skin is made, wash off immediately with soap and water. If swallowed, seek medical attention immediately, do not induce vomiting.

TECHNICAL SUPPORT

CIC provides on-site assistance, as well as consulting services on projects when requested. Technical data sheets on other CIC products and guidance on their use are available on request.



Warranty

CIC products are guaranteed against defective materials and manufacture and sold subject to CIC's standard terms and conditions of sale. Whilst CIC endeavors to ensure that any advice, information or recommendation given is correct, the company cannot accept any liability either directly or indirectly arising from the use of its products. User of the product must test the product's suitability for the intended application and purpose, since the company has no control over the application of its products. Information contained in this document is given on the best current knowledge. Our Products are in continuous development and CIC reserves the right to change the product without prior notice.