EmO Floor FC 100

Solvent free, high build epoxy resin floor coating

Uses

EmO FC 100 provides a hard wearing, chemical and abrasion resistant floor finish. It is ideally suited for use in wet areas where a high degree of resistance to chemicals, oils and grease is required such as:

- Dairies
- Soft drink production facilities
- Chemical manufacturing plants
- Car parks and Work shops
- Schools
- Hospitals

Typical Applications & Advantages

- Solvent free – no odor during application
- Fast application – minimizes down time
- Chemically resistant – good resistant to a wide range of chemicals
- Durable, low maintenance costs
- Hygienic – provides a seamless floor surface which is easily cleaned
- Attractive – Can be made in a wide range of colors up on request.
- Specially formulated for use in Middle East condition

Product Description

EmO FC100 is a solvent free system based on epoxy resisns and curing agents specially selected for their ability to withstand chemical attack. The system consists of pre-weighed base and hardner components, supplied as two-component system. When laid, it provides a smooth, light reflective surface. It can be made available in a range of standard colors on request.

Specification

The epoxy based coating shall be EmO FC 100 from Elmrr. The total dry film thickness of the coating shall be a minimum of 200 microns. The floor shall be prepared and the coating mixed and applied in accordance with the manufactures current data sheet.

Typical Properties

The values given below are average figures achieved in laboratory tests. Actual values obtained on site may show minor variations from those quoted.

Mixed specific gravity	:	1.30g/cm^3
Complete cure	at 23^0 C	at 35^0 C
	: 7days	5 days
Compressive strength		
@25^0 C 7 days	:	70N/mm2
Flexural strength		
@25^0 C 7 days	:	40N/mm2
Tensile Strength		
@25^0 C 7 days	:	20N/mm2
Adhesion Strength	: (Concrete failure)	
	(ASTM D 412)	

Application thickness : 100 microns/single coat

Water absorption : Nil

Shore D hardness : 85

Chemical Resistance

EmO FC 100 is resistant to spillages of the following when tested accordance with ASTM D 1308 Cl. 3.1.2.

Acids (m/v)

HCL 25% : Resistant

H2SO4 25% : Resistant

Citric Acid 25% : Resistant

Acetic Acid 10% : Resistant

Alkalis (m/v)

NaOH 50**%** **:** Resistant

KOH : Resistant

Solvents & Organics

Petrol : Resistant

Skydrol : Resistant

Diesel : Resistant

Brake fluid : Resistant

Engine oil : Resistant

Ethylene glycol : Resistant

Propylene glycol : Resistant

Kerosene : Resistant

Aqueous solutions

Water (tap, distilled, potable): Resistant

Sodium chloride (sat) : Resistant

Urea solution (Sat) : Resistant

Technical Support

Elmrr provides a comprehensive technical support service to specifiers, end users and contractors and is able to offer on-site technical assistance.

Directions for Use

Surface Preparation: Ensure the concrete foundation surface is dimensionally stable and free of dirt, dust, oil, laitance, paint, curing compounds etc. Bolt holes and fixing pockets should be free from any dirt or debris. If possible a roughened surface is preferable to smooth surfaces. Metal surfaces must be free from rust, loose scaling and paint. Shuttering should be covered with polyethylene to ensure a clean release.

Priming

All surfaces should be primed with ELM MP designed for maximum absorption and adhesion to concrete substrates.

Add the entire content of the hardener tin to the base tin and mix the two primer components thoroughly for at least 2 minutes – under no circumstances should part mixing be considered.

Once mixed the primer should be applied immediately to the prepared substrate using stiff brushes or rollers. The primer should be

well-scrubbed in to the substrate to ensure full coverage, but care should be taken to avoid over application or ponding.

Allow the primer to dry before proceeding to the next stage, do not proceed while whilst the primer is tacky as this will lead to unsightly marks in the finished surface. Porous substrate may require a second primer coat – when the first coat is directly absorbed in to the substrate – but minimum over coating time must still be observed.

The over coating time will vary slightly according to the porosity of the substrate. However, they should be in accordance with the following ambient application temperatures.

20^0c	:	6 – 24 hours
30^0c	:	3 – 16 hours
40^0c	:	2 – 10 hours

Mixing: Do not commence mixing until all surface preparation, cleaning and shuttering is complete. **EmO FC 100** is supplied in pre-weighed units. Add the reactor to the base in a suitable forced action mixer; alternatively use a slow speed drill and paddle. Continue mixing until a completely homogenous material is obtained.

Placing: Ensure that sufficient mixed material is available to complete the work and achieve a continuous filling operation.

The first coat of EmO FC 100 should be applied using a good quality medium haired pile roller, suitable for epoxy application, or squeegee to achieve a continuous coating. Ensure that loose hairs on the roller are removed before use. A minimum film thickness of 100 microns should be applied. This can be increased where specifications demand. When the base coat has reached initial cure, the top coat can be applied by medium haired roller, at minimum film thickness of 100 microns. Care should be taken to ensure that a continuous film is achieved.

Equipment care

Clean all equipment promptly using **ELM Solvent EP**. Cured material will have to be mechanically removed.

Packaging & Storage

EmO FC 100 is available in factory, pre-weighed units of 5 liters. It has a minimum shelf life of 12 months provided it is stored under cover, out of direct sunlight.

Coverage

5m^2/liter @ 200 microns wft

Health & Safety

Precautions

EmO FC 100 does not fall into the hazard classifications of current regulations. However, it should not be swallowed or allowed to come into contact with skin and eyes. Suitable protective gloves and goggles should be worn. Splashes on the skin should be removed with water. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately – do not induce vomiting.

For further information refer to the Material Safety Data Sheet available for this product.

Important note

Elmrr endeavors to ensure that the technical information contained herein is true, accurate and represents our best knowledge and experience. No warranty is given or implied, as Elmer has no control over the conditions of use and the competence of any labor involved in the application are beyond our control.

As all Elmrr technical data sheets are updated on a regular basis it is the customer's responsibility to check that the product is suitable for the intended application, and that the actual conditions of use are in accordance with those recommended.

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