

Cemfloor SF Coat

Solvent free, high build, epoxy resin floor coating and multi-layers system

Innovative products for your success

Uses

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

- Dairies
- Soft drinks production facilities
- Chemical manufacturing plants
- Car parks and workshops

Advantages

- Durable, low maintenance costs.
- Proven against a wide range of industrial chemicals
- Solvent free – no odor during application.
- Slip resistant – different textures available to suit conditions to avoid slipping.
- Available in a wide range of colours to improve the working environment and identify slip hazard areas.
- Specially formulated for use in Middle East conditions.

Description

Cemfloor SF Coat is a solvent free build-up system based on epoxy resins and curing agents specially selected for their ability to withstand chemical attack. The system consists of pre-weighed base & hardener components, all of which contain reactive element that are essential to the installation of the system. A slip resistant texture can be provided by the use of one of a range of anti-slip grains which have been carefully graded to ensure an even surface.

Specification

The epoxy resin floor coating shall be of minimum dry film thickness of the coating system shall be 400 microns and shall have a Compressive strength² of 80 N/mm² or above a Flexural strength of 40 N/mm² or above and a Tensile strength of 25 N/mm² or above. The floor shall be prepared and the coating mixed and applied in accordance with the manufacturer's current data sheet and recommendation.

Design Criteria

Cemfloor SF Coat is applied as a floor coating build-up system or multi-layer system (In case of thicker layer needed) comprising of two top coats (depending on the substrate conditions a primer might be required) each top coat to be a minimum of 200 microns thick. To provide a slip resistant texture, the first top coat can be dressed with anti-slip grains.

Technical Support

Cemkrete offers a comprehensive technical support and service to specifiers, end users and contractors. It also offers on-site technical assistance where required.

Properties :

The following values were obtained when tested at 20°C and 30 °C.

Volume solids Cemfloor SF Coat : 100%

	<u>20 °C</u>	<u>30 °C</u>
Pot life :	40 mins	20 mins
Cure time :	24 hours	18 hours
Maximum time Between coats :	36 hours	15 hours
Light traffic use after :	24 hours	18 hours
Full traffic use after :	48 hours	24 hours
Resistance to chemical spillage :	7 days	5 days
Compressive strength :	>80 N/mm ² BS 6319	
Flexural strength :	>35 N/mm ² BS 6319	
Tensile strength :	>20 N/mm ² BS 6319	
Bond strength to concrete :	> Cohesive strength of concrete	

Chemical resistance

Fully cured **Cemfloor SF Coat** samples have been tested in a wide range of aggressive chemicals commonly found in industrial environments. Tests were performed by constant immersion over a set period, followed by visual inspection.

Acids Resistance

Hydrochloric acid 25%	: Excellent
Sulphuric acid 40%	: Excellent
Acetic acid 10%	: Excellent
Lactic acid 10%	: Excellent
Citric acid 30%	: Excellent
Nitric acid 25%	: Good
Phosphoric acid 30%	: Good

Alkalis

Sodium hydroxide 50%	: Excellent
Ammonia (0.880) 10%	: Excellent

Solvents

Petrol	: Excellent
Oil	: Excellent
Kerosene	: Excellent
Butanol	: Good
Skydrol	: Good
Industrial Methylated spirits	: Good

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Chemical resistance (Continued...)

Others

Saturated sugar solution	: Excellent
Urea (saturated)	: Excellent
Bleach 5%	: Excellent

All the above properties have been determined by laboratory controlled tests and are in excess of those expected in practice. Nevertheless, success in use will be determined by the implementation of good housekeeping practices.

Standard application

The first coat of **Cemfloor SF Coat** 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 200 microns should be applied. This can be increased where specifications demand. When the base coat has reached to initial cure (12 hours @ 20°C or 5 hours at 35°C). The top coat can be applied by medium haired roller at minimum film thickness of 200 microns. Care should be taken to ensure that a continuous film is achieved.

Instructions for use

Surface preparation

The long term durability of any resin floor system is determined by the adhesive bond achieved between the flooring material and the substrate. It is most important therefore that substrates are correctly prepared prior to application.

New concrete floors

These should normally have been placed for at least 28 days before and have a moisture content of less than 5%. Floors should be sound and free from contamination such as oil and grease, mortar and paint splashes or curing compound residues. Excessive laitance can be removed by light mechanical scrubbing, grinding or grit blasting. Light laitance can be removed by acid etching followed by thorough washing with clean water, vacuum cleaning and then allowing the surface to dry.

Old concrete floors

Where deep seated contamination has occurred, mechanical methods such as blasting, grinding or scrubbing should be used to provide a suitable clean surface. Any necessary repairs should be carried out using Cemcrete SG. (see separate data sheets).

Priming

Priming is not normally required provided the substrate is sound, untreated and good quality non-porous concrete. If any doubts exist of the quality of the concrete, or if it is porous and treated it should be primed with Cemfloor Primer 500. Contact the local Cemcrete office for advice. Cemfloor Primer 500 should be mixed in the proportions supplied. Add the entire contents of the hardener can to the base can. When thoroughly mixed preferably using a slow speed drill film, using rollers or stiff brushes. Work the primer well into the surface of the concrete taking care to avoid ponding or over application. The primer should be left to achieve a dry condition before applying the top coat. A second coat of primer may be required if the substrate is excessively porous.

Mixing the top coat

In a separate mixing vessel, use a slow speed drill and mixing paddle to mix the base, hardener and colour pot for 3 minutes. Mix these components in the quantities supplied taking care to ensure all containers are scraped clean. Do not add solvent thinners at any time.

Estimating

Supply

Cemfloor Primer 500	: 5 kg packs
Cemfloor SF Coat	: 5 kg packs

Standard coverage

Cemfloor Primer 500	: 4 -6 m ² /kg
Cemfloor SF Coat (Base Coat)	: 2.9 m ² /kg
Cemfloor SF Coat (Top Coat)	: 2.9 m ² /kg

Coverage – Anti-slip for medium texture (approx.)

Cemfloor Primer 500	: 4-6 m ² /kg
Cemfloor SF Coat (base coat)	: 2.3 m ² /kg
Anti-slip Grain No. 2	: 10 m ² /kg
Cemfloor SF Coat (Base Coat)	: 2.3 m ² /kg
Estimated system thickness	: 1.5 -2.0 mm

Limitations

Cemfloor SF Coat should not be applied on to surfaces known to or likely to suffer from rising damp conditions or have a relative humidity greater than 75% as measured in accordance with BS 8203 Appendix A, or by a Hammond concrete / mortar moisture tester type COCO.

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Anti-slip application

If a slip resistant texture is required, the base coat shall be applied as per the standard application, but at a minimum film thickness of 250 microns. The base coat should then be dressed with the chosen anti-slip grain. This should be done as soon as possible after laying. The recommended procedure is to completely blind the base coat i.e. Apply excess dressing aggregate to completely obliterate the base coating. Alternatively, the anti-slip grains can be broadcast in a light random dressing to provide a less dense finish. When the base coat has reached initial cure (12 hours@ 20 °C or 5 hours at 35 °C), the excess aggregate should be vacuum cleaned from the surface. The top coat can now be applied by medium haired roller, at a minimum film thickness of 250 microns. Care should be taken to ensure that a continuous film is achieved and the rough surface, caused by the aggregate, is completely sealed. This top coat must be applied within 36 hours @ 20°C (15 hours @ 35 °C) of the application of the first coat.

Expansion Joints

Expansion joints in the existing substrate must be retained and continued through the **Cemfloor SF Coat** topping. Cemkrete have a range of joint sealants specifically designed for flooring, contact local Cemkrete office for advice.

Cleaning

Tools and equipment should be cleaned with solvent immediately after use. Spillages should be absorbed with sand or saw dust and disposed of in accordance with local regulations.

Storage

Shelf life

Cemfloor SF Coat has shelf life of 12 months when stored in warehouse conditions below 35°C in the original, unopened packs.

Storing conditions

Store under warehouse conditions, below 35°C in the original, unopened packs.

Additional Information

Cemkrete manufactures and supplies a wide range of those complementary products which include:

- Waterproofing membranes & waterstops
- Joint sealants & filler boards
- Cementitious & epoxy grouts
- Specialized flooring materials
- Fireproof coating and systems
- Concrete admixture
- Repairing material

For further information on any of the above, please consult your local Cemkrete office - as below.

Important Note: Cemkrete warrants its materials free of manufacturing defects and produced as per standard specifications and sold under the terms and conditions of usages, whilst Cemkrete endeavors to ensure that any advice, recommendation, or information, given through its products literatures are reflects of the R&D in-house lab test and practical sites experience and knowledge based feed backs, however, the products are being used under various conditions and applied beyond its control where or how either directly or indirectly at various locations and places at a different stages that of an intended purposes and uses. Therefore, Cemkrete cannot hold warranty or responsible for resultant consequences, such as damages to the property or assets but the product itself.