

# Cemfloor 10000TF

*High performance heavy duty epoxy floor screed*

*Innovative products for your success*

## Uses

**Cemfloor 10000TF** provides an extremely durable, high strength, chemical, impact and abrasion resistant floor and is suitable for the following:

- Ideally suitable for use in heavy engineering plants, processing areas, oil refineries, workshops and other industrial plants where a floor topping of up to 10 mm thick is required.
- For use in areas of light-duty where above average durability and low maintenance costs are required.
- For use in over-coating and sealing with one of the Cemfloor FC epoxy resin floor coating range where high degrees of cleanliness and chemical resistance are required.

## Advantages

- Trafficable - can be open to traffic after 24hours.
- Durable - capable of withstanding heavy loads and highly resistant to abrasion.
- Chemical resistant - withstands a wide range of chemicals.
- Non-slip - good gripping surface to both vehicular and pedestrian traffic.
- Seamless - eliminates potential sources of failure.
- Low odor - no harmful vapors present.
- High strength - strengths in excess of the concrete to which material is applied.
- Locally produced - formulated for use in Middle East conditions.

## Description

**Cemfloor 10000TF** is a four component solvent free mortar consisting of an epoxy resin base, hardener, a specially selected and graded aggregate of high crushing strength and a color pack. It is trowel applied at a thickness of between 5 and 10 mm for the heaviest industrial applications. Cemfloor 10000TF screed provides an impervious durable, chemical resistant topping with a slightly granular texture to give non-skid finished surface.

## Technical support

Cemkrete offers a comprehensive range of high performance, high quality flooring, jointing and repair products for both new and existing floor surfaces. In addition, the company offers a technical support to specifiers, end-users and contractors, as well as on-site technical assistance.

## Properties

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

### Properties

#### **Mechanical characteristics @ 23°C cure for 7days**

<b>Compressive strength :</b> (ASTM C579)	102 N/mm <sup>2</sup>
<b>Flexural strength :</b> (ASTM C580)	25 N/mm <sup>2</sup>
<b>Tensile strength :</b> (ASTM C307)	18 N/mm <sup>2</sup>
<b>Bond strength to concrete :</b>	> cohesive strength of the concrete

<b>Shore D Hardness :</b> (ASTM D2240)	70-75
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#### **Curing characteristics**

	25°C	35°C
<b>Pot life :</b>	45 mins	30 mins
<b>Initial hardness :</b>	16 hours	8 hours
<b>Full cure :</b>	7 days	4 days
<b>Trafficable time :</b>	24 hours	16 hours

#### **Chemical resistance**

Cemfloor 10000TF is resistant to the following chemicals at 30°C.

#### **Acids (m/v)**

<b>Acetic acid 5% :</b>	Resistant
<b>Hydrochloric acid 18% :</b>	Resistant
<b>Sulphuric acid 20% :</b>	Resistant
<b>Phosphoric acid 25% :</b>	Resistant

#### **Alkalis (m/v)**

<b>Sodium hydroxide 25% :</b>	Resistant
<b>Ammonia 33% :</b>	Resistant

#### **Aqueous solutions**

<b>Saturated Sodium Chloride :</b>	Resistant
<b>Bleach :</b>	Resistant
<b>Saturated sugar :</b>	Resistant
<b>Urea solution 25% :</b>	Resistant
<b>Sea water :</b>	Resistant

#### **Solvents**

<b>Isopropyl Alcohol :</b>	Resistant
<b>Ethyl Alcohol :</b>	Resistant

These tests have been conducted in accordance with ASTM D1308 for spot tests and ASTM D543 for immersion tests, as appropriate. Please contact your local Cemkrete office for the complete list of chemicals tested. 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.

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## Instructions for use

### Surface Preparation

A good floor topping is only as good as the preparation. It is essential that Cemfloor 10000TF is applied to sound, clean and dry surfaces in order that maximum bond strength is achieved between the substrate and the flooring system.

### New concrete floors

Should be at least 28 days old (at 35°C) Laitance on new concrete floors is best removed by light grit blasting, mechanical scrubbing or grinding. Acid etching is not recommended.

### Old concrete floors

Again, mechanical cleaning methods are strongly recommended on old concrete floors particularly where heavy contamination by oil and grease has occurred or existing coatings are present. These may well have been absorbed several millimeters into the concrete. To ensure adhesion, all contamination should be removed. Proprietary chemical degreaser may be used on small areas of light contamination only. All dust and debris should be removed prior to laying Cemfloor 10000TF, preferably by industrial vacuum cleaning.

### Priming

All surfaces treated with Cemfloor 10000TF should be primed with Cemfloor Primer 1000 a solvent free low viscosity epoxy resin primer designed for maximum absorption and adhesion to the substrate. Add the entire contents of the hardener tin into the base tin and mix thoroughly. Once mixed, immediately apply the primer in a thin continuous film to the clean prepared surfaces by the recommended application rate. Work the primer into the surface and avoid over application and puddling. On porous floors, the primer will be absorbed very quickly leaving characteristic light colored dry patches. If the primer is too thin or dry, it is recommended that a second priming coat is applied in these areas. Wait until the primer is in tacky condition (before dry) prior to commencing Cemfloor 10000TF application.

### Mixing

It is important that Cemfloor 10000TF is mixed correctly. Empty the color pack into the base container and mix for 15-30 seconds, until homogeneous. Add the entire contents of the hardener into the mix and stir for further 30 seconds, until homogeneous. Gradually empty the filler (aggregate) into the mix of base, color pack and hardener and continue mechanical mixing, using mixing paddle fitted to a slow speed forced action mixer, for a further 2-3 minutes, until all components are thoroughly blended.

## Application

**Cemfloor 10000TF** is laid up to 10 mm thick in one application. Ensure that the primer is in tacky condition when apply otherwise the recoat should be done. The mixed Cemfloor 10000TF is raked (spread) to the required thickness and tamped with a wooden float, or levelled with a screeding bar, to ensure full compaction. To provide as close a textured finish as possible, finish off the process using a steel trowel regularly cleaned. The use of trowel on the trowel will aid application.

## Expansion joints

Expansion joints in the existing substrate must be maintained through the Cemfloor 10000TF screed. For suitable joint sealants, please contact your local Cemcrete office.

## Sealing

In areas where a high degree of cleanliness, or where a specific colour, or improved chemical resistance is required, the surface of Cemfloor 10000TF can be sealed. Recommended Cemcrete products include Cemfloor FC. For application details and other information see the relevant technical data sheets. Over-coating can commence when the Cemfloor 10000TF has cured for 24 hours at 35°C.

## Cleaning

Tools and equipment should be cleaned with solvent immediately after use.

## Limitations

- **Cemfloor 10000TF** should not be applied on to surfaces which are known to, or likely to suffer from, rising dampness, potential osmosis problems or have a relative humidity greater than 75% as measured in accordance with BS 8203 Appendix A.
- Cemcrete does not recommend acid etching as a method of floor preparation. However the use of such method should be approved by the project consultant.
- **Cemfloor 10000TF** is not recommended for outdoor applications. If movement or cracking of the substrate takes place after application, reflective cracking of the topping may occur. All known expansion joints should be continued in the topping.

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## Estimating

### Supply

**Cemfloor 1000TF :** 28 Kg. Pack (A+B+C)  
(Approx. 13 liters)

### Coverage

**Cemfloor 1000TF :** 1.2 m<sup>2</sup> / pack @ 10mm thickness  
**Cemfloor Primer 1000 :** approx. 3.3 m<sup>2</sup> / kg.

NOTE: The above coverage rates are given for guidance only as actual quantities used will vary depending upon nature of the substrate and conditions on site. A heavily scabbled or uneven floor will have excessive consumption.

## Storage

### Shelf life

When stored in dry, cool conditions, in the original, unopened pack, Cemfloor 1000TF will have a shelf life of 12 months.

## Precautions

### Health and safety

**Cemfloor 1000TF** and solvent should not come into contact with the skin and eyes, or be swallowed. Ensure adequate ventilation and avoid inhalation of vapors. Some people are sensitive to resins, hardeners and solvents. Wear suitable protective clothing, gloves and eye protection. If working in confined areas, suitable respiratory protective equipment must be used. The use of barrier creams provides additional skin protection. In case of contact with skin, rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent. In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed seek medical attention immediately - **do not** induce vomiting.

## Additional Information

Cemkcrete 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 Cemkcrete office - as below.

**Important Note:** Cemkcrete warrants its materials free of manufacturing defects and produced as per standard specifications and sold under the terms and conditions of usages, whilst Cemkcrete 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, Cemkcrete cannot hold warranty or responsible for resultant consequences, such as damages to the property or assets but the product itself.