

# S-Crete MF

**High performance polyurethane based self-smoothing floor  
(3-5 mm thickness)**

*Innovative products for your success*

## Uses

**S-Crete MF** products have been designed for use in environments where high resistance to abrasion impact and chemical resistance is required. They are also suitable for use in wet process conditions. In addition S-Crete MF can be used in areas subjected to thermal shock. Typical areas of use include food processing areas, drink and beverage production areas, dairy processing and pharmaceutical manufacture. They provide a quality, cost effective alternative to tiling systems.

## Description

**S-Crete MF** systems are insitu applied polyurethane based floor screeds designed for use at thickness between 3 mm to 5 mm. They consist of mineral aggregates bound together with pigmented polyurethane resin.

The full system comprises:-

**Cemfloor Primer 1000**  
**S-Crete MF Hardener**  
**S-Crete MF Base**  
**S-Crete MF Aggregate**

## Advantages

- Fast curing/single application - minimizes down time
- Excellent mechanical strength - high abrasion and impact resistance
- Low modulus - resistant to thermal shock
- Excellent chemical resistance - including organic acids
- Slip resistant - including wet conditions
- Seamless - prevents ingress of dirt / bacteria and easily cleaned

## Technical support

Cemkcrete offers a comprehensive range of high performance, high quality, and construction products. In addition to the wide range of quality products, Cemkcrete offers a technical support to specifiers and contractors which includes assistance with product selection and technical advice from staff with unrivalled experience in the industry.

## Specification Clause

Floor areas designated to receive polyurethane based floor screeds should be surfaced and strictly following the guide lines as per the product manufacturer's instructions manuals.

## Typical Properties

The values given below for typical properties are average figures achieved in laboratory tests at 20 °C. As such, actual values obtained on site may show minor variations from those quoted.

All items are common to both systems with the exception of the aggregate.

Products are available in the following standard colors as shown on S-Crete MF colour card:- Brick Red, Grey, Mid Green and Yellow / Buff.

A coving mortar is available to enable integral coves to be constructed if required.

S-Crete MF systems may be applied to the following clean and prepared surfaces.

- Concrete compressive strength (mini 25 N/mm<sup>2</sup>)
- Polymer modified sand: cement screeds (Mini 25 N/mm<sup>2</sup>)

## Physical properties :-

**Compressive Strength :** > 58 N/mm<sup>2</sup>  
(BS 6319)

**Flexural Strength :** > 21 N/mm<sup>2</sup>  
(BS 6319)

**Tensile Strength :** > 7 N/mm<sup>2</sup>  
(BS 6319)

**Temperature resistance:** 0 to 120°C

**Bond Strength :** > Cohesive strength of concrete

**Impact resistance :** < 0.5 mm (BRE Screed Tester)

**Abrasion resistance by Taber**  
**(Loss per 1,000 cycles in mg/1,000 gm load)**  
**H22 wheel to ASTM D4060 :** 30

**Pot life @ 28 °C :** 15 min

**Water Absorption to Campden Test**  
**(ASTM D4060) :** Nil

**Coefficient of thermal Expansion**  
**(ASTM C531) :** 1.7x10<sup>-5</sup>C

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## Chemical properties :-

**S-Crete MF** will resist spillage of following chemicals at 25 °C

Organic chemicals	Inorganic chemical
Nicotinic acid (10%)	Hydrochloric acid (15%)
Lactic acid (20%)	Nitric acid (15%)
Acetic acid (10%)	Sodium hypo chlorite (5%)
Tartaric acid (20%)	Sodium hydroxide (saturated)
Citric acid (10%)	Potassium hydroxide (saturated)
Urine	Sulphuric acid (25%)
Fats and cooking oil	Detergent solution
Sugar solution	Ammonia solution (pure)
Glucose syrup	
Sodium benzoate Solution	Table salts solution (saturated)
Starch solution	

**Note:** Full chemical resistance is achieved after seven days at 23 °C.

The local Cemkcrete office should be consulted for additional chemicals, different concentrations or operating temperatures greater than 25 °C.

## Application Instructions

### 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. If movement or cracking of the substrate takes place after application then reflective cracking of the topping may occur. All known expansion joints should be maintained with the topping.

### New Concrete Floors

The new concrete floor should be at least 28 days old and give a hygrometer reading not exceeding 75% RH when tested in accordance with BS 8203 Appendix A. They should be cleaned free from contamination such as oil and grease, mortar and paint splashes or curing compound residues. Laitance should be removed by light mechanical scrubbing, grinding or grit blasting. Light laitance can be removed by acid etching with Acid Etch followed by thorough neutralization with clean water (check with indicator paper) 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.

**S-Crete MF** products should not be applied to the following substrates :-

**Asphalt Unmodified.**

**Sand cements screeds.**

**P.V.C tiles or sheet.**

For information on the suitability of other substrates consult Cemkcrete.

**S-Crete MF** products should not be installed at temperatures below 5 °C.

## Priming

All surfaces treated with S-Crete MF should be primed with Cemfloor Primer 500, a solvent based epoxy resin primer designed for maximum absorption and adhesion to the substrate. Add the entire contents of the hardener tin to the base tin and mix thoroughly.

Once mixed, immediately apply the primer in a thin continuous film to the clean prepared surfaces. Work the primer into the surface and avoid over application and puddling. On porous floors, Cemfloor Primer 500 which be absorbed very quickly leaving characteristic light colored dry patches. It is recommended that a second priming coat is applied in these areas.

All S-Crete MF floor should be applied onto cured Cemfloor Primer 500, which has been broadcasted with silica sand (option).

## Mixing

In a separate mixing vessel, use a slow speed drill and jiffy mixer to mix the base and hardener for at least 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 and should not part mix.

## Maintenance

The service life of a floor can be considerably extended by good housekeeping and regular cleaning. S-Crete MF products may be cleaned by a rotary scrubbing machine with a water miscible cleaning agent or by hot water washing at temperatures up to 100 °C. S-Crete MF may also be steam cleaned.

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## Precautions

### Health and Safety

**S-Crete MF** Binder and Cemfloor Primer 1000 should not come into contact with the skin and eyes or be swallowed. Avoid inhalation. Harmful effects may cause during application and care must be taken. See product Material Safety Data Sheet for operator precautions. Some people are sensitive to polyurethane resins and hardeners. Gloves,, goggles and barrier cream such as Kerodex Antisolvent or Hozalex Anti-paint should therefore be used. Ensure adequate ventilation.

If mixed resin comes into contact with skin it must be removed before it hardens with a resin removing cream such as Kerocleanse Standard Grade Skin Cleanser or Rozaklens Industrial Skin Cleanser, followed by washing with soap and water. Do not use solvent. Contamination of skin with any of the above component products should be removed immediately with soap and water.

Should accidental eye contact occur with any of the above products, wash well with plenty of clean water and seek medical advice. If swallowed, seek medical attention immediately - Do not induce vomiting.

### Fire

Do not expose to naked flames or other sources of ignition. No smoking. Containers should be lightly sealed when not in use. In the event of fire, extinguish with Co2 or foam.

## Additional Information

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

- 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.