

S-Crete HF

CEMKRETE

Heavy duty polyurethane based floor screed, 6 - 10 mm thickness, resistant to steam, hot water and chemicals, antimicrobial floor systems

Innovative products for your success

Uses

S-Crete HF is designed for use as heavy duty, chemical resistant antimicrobial polyurethane resin floor screed in environments where high resistance is required against impact, thermal shock, abrasion and chemicals. The thermal stability and chemical resistance makes it suitable for use in food processing areas, drink and beverage production areas, dairies, cold stores, freezer rooms, commercial kitchens and restaurants. It is particularly useful in areas when steam or hot water is required for cleaning.

Advantages

- Anti-microbial
- Excellent mechanical properties
- Very high chemical resistance
- High impact and abrasion resistance
- including organic and inorganic acids, alkalis and salts
- Resistant to thermal shock
- Resistant to steam and hot water cleaning
- Suitable for service range from -45 °C to 120 °C
- Resistant to freeze/thaw cycles
- Anti-slip - provides safe, textured slip-resistant surface for pedestrian and vehicular traffic

Description

S-Crete HF is polyurethane based floor screed designed for use at thickness between 6 mm and 10 mm. The product is formulated specifically to withstand thermal shock, freeze/thaw cycles and chemical attack. The product is supplied as a four-component system (including color pack) pre-weighed for on-site mixing. Standard colors include brick red, grey and mid green.

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 to it 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.

Compressive Strength (BS 6319) part 2 : >70 N/mm²

Flexural Strength (BS 6319) part 3 : >20 N/mm²

Tensile strength (BS 6319) part 7 : >12 N/mm²

Impact resistance (BS8204) (BRE Screed tester-0.5 mm) : No damage or deterioration

Resistance to fungal growth (JIS7280/ #2000) : Passes

Resistance to elevated Temperatures (150 °C) MIL-D-3134 : No flow, softening, chalking or cracking

Abrasion resistance (ASTM D4060 @ 1000 cycles): .05 grams loss

	20 °C	30 °C
Pot life	20 minutes	15 minutes
Initial cure	24 hours	12 hours
Full cure	10 days	7 days

Chemical Properties

S-Crete HF will resist spillage of following chemicals at 25 °C.

Organic chemicals	Inorganic chemicals
Nicotinic acid (10%)	Hydrochloric acid (10%)
Lactic acid (10%)	Nitric acid (15%)
Acetic acid (5%)	Sodium hypochlorite (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 benzonate solution	Table salts solution (saturated)
Starch solution	

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Instructions for Application

Surface Preparation

It is essential that S-Crete HF be applied to sound, clean and dry surfaces in order that maximum bond strength is achieved between the substrate and the flooring system. All dust and debris should be removed prior to application of the product or its primer.

New concrete floors

Should be at least 14 days old (at 20 °C) with maximum moisture content not exceeding 5%. Laitance deposits on new concrete floors are best removed by light grit blasting, mechanical scrubbing or grinding.

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, hot compressed air are recommended for this purpose. Proprietary chemical degreaser may be used on small areas of light contamination only.

Steel surfaces

Steel surfaces should be degreased and grit blasted to SA2 1/2 immediately prior to application. Clean steel surfaces should be primed with Cemfloor Primer 500 prior to the application of S-Crete HF.

Priming

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

Mixing

It is important that S-Crete HF is mixed correctly.

The entire contents of the hardener should then be poured into the base container and mixed thoroughly until homogeneous.

Pour the mixed base, and hardener slowly into a suitable forced action mixer such as Mixal, Crotangle or similar. A free fall mortar mixer is not suitable. Add the aggregate continue mechanical mixing for a further 2-3 minutes, until all components are thoroughly blended.

Application

The mixed S-Crete HF should be spread to uniform thickness on the primed surface using either a garden rake or the edge of a plastic trowel only when the primer is in a tacky condition. The material should be tamped with a wooden float to ensure complete compaction and finally finished to a closed even texture using a steel trowel. Screeding rods are useful to maintain a minimum compacted thickness of 6 mm (0.6cm)

Once mixed, the material must be used within its pot life, after this time any unused material will have stiffened and should be discarded.

Cleaning

S-Crete HF and Cemfloor Primer 500 should be removed from tools and equipment with Solvent immediately after use. Hardened material can only be removed mechanically.

Maintenance

The service life of a floor can be considerably extended by good housekeeping. Regular cleaning should be carried out using a rotary scrubbing machine with a water-miscible cleaning agent.

Limitations

- **S-Crete HF** should not be applied on to surfaces which are known to or likely to suffer from rising damp, osmosis or have relative humidity greater than 80% as measured in accordance with BS 8203 Appendix A or by a Vaisala thermo-hygrometer type HMI 31.
- S-Crete HF should not be applied to asphalt, unmodified sand/cement screeds, PVC tiles or sheet. For information on the suitability of other substrates, consult the local Cemcrete office.
- S-Crete HF should not be installed at temperatures below 5 °C.

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Estimating and Packaging

Supply

S-Crete HF : 30 kgs packs

Coverage

S-Crete HF : 2.5 m²/pack@6mm. Thickness
1.9 m²/pack@8mm. Thickness
1.5 m²/pack@10mm. Thickness

Note: The coverage figures given are theoretical and due to the wastage factors and the variety of nature of possible substrates, practical coverage figures will be reduced. Typically an additional 10% should be allowed for surface irregularities and wastage although this will vary with site conditions.

Storage

Shelf life

All products have a shelf life of 12 months if kept in a dry store in the original, unopened packs.

Storing Recommendations

Store in dry conditions between 5 °C and 30 °C, away from sources of heat and naked flames, in the original, unopened packs. If stored at high temperatures the shelf life may be reduced.

Cleaning and Disposal

Spillages of component products should be absorbed on to earth, sand or other inert material and transferred to suitable vessels. Disposal of such spillages or empty packing should be in accordance with local waste disposal regulations.

Health and Safety

S-Crete HF and Cemfloor Primer 500 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.

Fire

S-Crete HF and Cemfloor Primer 500 are non-flammable.

Additional Information

Cemkcrete 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 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.