

Cemkrete EN989 GF

CEMKRETE

**High chemical and Temperature resistant Epoxy Novolac
Protective coating and Lining system**

Description

Cemkrete EN 989 GF is a, Glass Flake filler epoxy novolac highly cross-linked based coating. **Cemkrete EN989 GF** is a two-part material and can be applied by brush, roller or airless spray.

Uses

Cemkrete EN 989 GF is designed to provide protection to concrete and steel structures in aggressive chemical conditions. The material is particularly suitable in pipe lines & valves, wastewater treatment plants, desalination plants, food processing plants, pump and paper mills, electric power plants, chemical manufacturing plants, fertilizer and insecticide plants and petroleum refineries.

Cemkrete EN 989 GF also be used with or without Anti-slip grains as a heavy-duty floor coating in applications such as chemical processing and drum storage areas, loading docks and ramps. It may also be used as top coat of FRP lining to increase the subjected to aggressive chemicals.

Advantages

- **Cemkrete EN 989 GF** need only thin film with low labor cost.
- **Cemkrete EN 989 GF** is easy to apply.
- **Cemkrete EN 989 GF** exhibits excellent chemical resistance in pH ranging from 1-14 at 25°C
- **Cemkrete EN 989 GF** has excellent adhesion to properly prepared concrete, mild steel, and other substrates
- **Cemkrete EN 989 GF** is high temperature resistance more than 120 °C.
- High abrasion resistance.

Specification

Cemkrete EN 989 GF The chemical and abrasion resistant coating, two-pack system

Chemical resistance

The fully cured coating is resistant to the splash/spillage such as following chemicals:

- Acetic acid 70%
- Sodium hydroxide (any concentrate)
- Ammonium hydroxide (any concentrate)
- Sodium hypochlorite 5%
- Citric acid 50%
- Lactic acid 95%
- Formaldehyde 37%
- Phosphate 70%
- Hydrochloric acid 35%
- Nitric acid 30%
- Calcium Hydroxide Powder Salt (Sodium Chloride 100%)
- Hydrogen peroxide 22%
- Sulfuric acid 98%
- Tartaric acid 50%

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The other list of chemical should be consulted with **Cemkrete**.

Properties

Solid content:	100%
Color:	Grey
Specific gravity:	1.22± 0.02
Pot life:	45 min. @ 23°C 20 min. @ 35°C
Tack-free time:	4-5 hours @ 23°C 3-4 hours @ 35°C
Full cure:	7 days @ 23°C 5 days @ 35°C
Hardness:	85+5 Shore D
Abrasion resistance: (1 kg, H-22 Wheels)	0.05 mg/cycle
Service temperature:	> 120°C

Instructions for use

Preparation of concrete surfaces

All concrete surfaces designated to receive the lining, should of at least 28 days old and have a moisture content of less than 5%.The surfaces shall be dry, sound and free from debris and loose material. The substrate must also be free from contamination such as oil, grease, wax, dirt or any other form of foreign matter which might affect adhesion. All blow holes and imperfections areas should be filled with **Hydrapox 112**.

Preparation of steel surfaces

All steel surfaces should be grit blasted to meet the requirements of BS4232, First Quality. The lining work should be programmed so that newly cleaned steel is coated as soon as possible before the formation of rust or scale.

Priming

Cemkrete EN 989 GF is recommending to be used with primer. For concrete substrate, **Cemprime 500** was recommended. For steel and other metal substrate, **Cemprime 1000** was recommended.

Mixing

It is fundamental that the resin be thoroughly mixed with the hardener in the exact ratios to ensure optimum performance. Therefore, the entire contents of the hardener can should be added to the base container and mixed until a uniform color and consistency are obtained, taking particular care to scrape the sides and bottom of the container. It is recommended that mechanical mixing be employed using a mixer on a high speed electric drill for 5 minutes.



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Application

Cemkrete EN 989 GF once mixed, should immediately be applied to the prepared surface ensuring a continuous coating of uniform thickness is obtained. Stiff nylon brush or short nap roller is recommended for such application. Faster rate of application is possible using airless spray equipment.

Re-coating

To re-coat, it is crucial that the second coat be applied within the specified over-coating time.

Use as top coat on glass fiber FRP lining systems

Cemkrete EN 989 GF may be used as top coat of FRP fiber cloth lining system to increase chemical resistance of the system or where it is necessary to bridge fine cracks in the substrate.

A second coat should then be applied within the specified over-coating time.

Use of Anti-slip grains

Cemkrete EN 989 GF can be used in conjunction with Anti-slip grains to provide a heavy-duty slip-resistant flooring system. The first coat will be applied as described above with a minimum film thickness of 250 microns. The base coat should now be dressed with the chosen Anti-slip grains. The recommended procedure is to completely blind the base coat i.e. apply excess dressing aggregate.

Mixing Ratio

Cemkrete EN 989 GF 20 Kg Packs (Part A: Part B = 4:1)

Recommande consommations

Cemkrete EN 989 GF: 250 to 300 gram /m²/coat
Need minimum 2 coats

Cleaning

Cemkrete EN 989 GF should be removed from tools and equipment with solvent immediately after use. Cured material can only be removed mechanically.

Limitations

Substrate, ambient and product temperature must remain above 15°C during application and curing. Minimum material/container temperature for spray application is 20°C. Avoid moisture contamination.

Cemkrete EN 989 GF should not be applied on to surfaces known to, or likely to suffer from, rising dampness, potential osmosis problems or have a relative humidity greater than 75%. Application should not be undertaken if the temperature is below 5°C, or is 5°C and falling, nor when the prevailing relative humidity exceeds 80%.

Storage

Cemkrete EN 989 GF When stored in dry air conditioned stores at temperatures between 15-30°C, in the original, unopened containers it will have a shelf life of 12 months. If stored at high temperatures the shelf life will be reduced. Air conditioned storage at high ambient temperatures is recommended.

Health and safety

Cemkrete EN 989 GF should not come in contact with skin and eyes, or be swallowed. Ensure adequate ventilation and avoid inhalation of vapour. If working in confined areas, then suitable respiratory equipment must be worn. Some people are sensitive to resins and solvents. Wear suitable protective clothing, gloves and eye/face protection. Barrier creams provide additional skin protection. Should accidental skin contact occur, remove immediately with a resin removing cream, followed by 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

Cemkrete EN 989 GF Is flammable. Solvent is flammable. Keep away from sources of ignition. No smoking. In the event of fire, extinguish with CO₂ or foam. Do not use a water jet.

Additional Information

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

- Waterproofing membranes & water stops
- 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.