

Epoline 139

CEMKRETE

High performance non-toxic solvent free epoxy resin coating for potable water tank lining & coating

Innovative products for your success

Description

Epoline 139 is a high performance high gloss non-toxic coating is based on solvent free, epoxy resins which contain pigments and fine fillers. It is supplied in pre-measured quantities ready for site mix use. The material cures to provide a smooth, tough and resistant finish.

Epoline 139 is suitable for dry, or damp, surfaces generally as a two coat application to give a final dry-film-thickness (DFT) of 400 microns. It is available in blue and white to enable simple, visual checking for full coat application.

Uses

As a protective coating for concrete and mild steel. It is particularly useful where concrete surfaces are damp and could not be dried out. The cured film is corrosion, chemical and abrasion resistant and is suitable for application as follow:

- Potable water pipes and tanks
- Suitable for use in confined areas
- Able to apply directly to mild steel and concrete
- Achieve smooth, glossy, and easy to clean surface
- Excellent corrosion, chemical and abrasion resistant
- Able to apply to damp surfaces
- Reservoirs and water treatment works
- Food processing factory areas
- Tunnels
- Subways
- Airports

Advantages

- Easy to apply
- High build application
- Excellent performance
- Multi-purpose coating, due to non toxicity
- Low cost service life - resistant to mould growth, chemical attack and abrasion
- Easy to clean, smooth gloss finish, with high build capability
- Easy to apply, solvent free, formulation makes it suitable for use in confined spaces

Specification Clause

Corrosion, chemical and abrasion resistant lining coating shall be of a non-toxic solvent free protective epoxy coating, specifically designed for application to damp surfaces and to provide a tough, impermeable and resistant film, which is used in contact with potable water. It shall have excellent bond and chemical resistance properties.

Standards Compliance

BS 6920 : WRC tests on Water Quality.
ASTM D-570-81 : Water absorption at 70°C.
ASTM D-638-77a : Tensile strength.

Properties

Volume solids :	100%	
	@ 25°C	@ 35°C
Pot life :	25-35 mins	10-15 mins

Water Permeability

Resistance : No water penetration

Bond Strength

(BS1881 Part 207) : > 2.00 N/mm²

Dynamic Crack Bridging : Passed

Salt Spray Resistance

(BS 1881: Pt 4: 1988) : Passed

Sea Water Immersion

Resistance (BS1881:Pt 124:1988) : Passed

The fully cured film

is excellent resistant to: Hydrochloric acid 30%
Lactic acid 1%
Phosphoric acid 10%

Sodium Hydroxide 40%

Kerosene
Petrol
Gas oil
Fuel

Chlorinated water
Sewage water
Distilled water

The local Cemcrete office should be consulted for resistance to specific chemicals.

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Instructions for Applications

Preparation

Concrete surfaces

All surfaces must be smooth, sound and free from debris, loose or flaking material and areas of standing water. Surfaces must be free from contamination such as oil, grease, dust, loose particles and organic growth. Concrete surfaces must be fully cured, laitance free and free from any traces of shutter release oils and curing compounds. All surfaces should then be grit blasted to remove any foreign matter, and provide a suitable key for **Epoline 139**. All blow holes and imperfections should be filled with Cemkrete repair systems. Consult the local data sheet for pot life and overcoating time.

Steel surfaces

All surfaces should be grit blasted to meet the requirements of BS 4232, 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

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 it should be primed with Primer 1000. Contact the local Cemkrete office for advice. Primer 1000 should be mixed in the proportions supplied. Add the entire contents of the hardener can into the base can. When thoroughly mixed, preferably using a slow speed drill fitted with paddle, the primer should be applied in a thin continuous 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 dry condition before applying the top coat. A second coat of primer may be required if the substrate is excessively porous.

Mixing

The contents of the base can should be stirred thoroughly to disperse any settlement. The entire contents of the hardener can should be added to the base container and mixed thoroughly until a uniform consistency is obtained, taking particular care to scrape the sides and bottom of the container. It is recommended that mechanical mixing be employed, using a mixing paddle on a heavy duty, slow speed electric drill.

Application

Number of coats :	2	
Theoretical application rate per coat : FT/Coat	5.0m ² /litre@200μ	
Theoretical wet film Thickness per coat :	200 μ	
Drying time :	@20°C	@35°C
Touch dry	6 hrs	3 hrs
Recoatable	6-18 hrs	3-12
hrs		
Fully cured	7 days	5 days
Fully cured :		
@ 5°C :	14 days	
@ 20°C :	7 days	
@ 35°C :	5 days	

All surfaces should be treated with two coats of **Epoline 139**. The thoroughly mixed material should be applied with a suitable brush or roller. The first coat must be firmly applied and be well scrubbed into the surface, ensuring a uniform coating with a wet film thickness not less than 200 microns. The first coat should be allowed to dry for not less than 2 hours and not more than 16 hours at 35°C. The second coat should be applied exactly as above, again achieving a wet film thickness not less than 200 microns. For cold weather working, it is recommended that **Epoline 139** be stored in a heated building and removed immediately before use, as workability deteriorates and curing times increase at lower temperatures.

Cleaning

Epoline 139 should be removed from tools and equipment with Solvent immediately after use. Cured material can only be removed mechanically.

Technical Support

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

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Estimating and Packaging

Supply

Epoline 139 : 5 kg packs

Coverage

Epoline 139 : 4-5 m²/kg.
@ 200μ WFT per coat
Primer 1000 : 5-8 m²/kg.

Note: The coverage figure is theoretical . due to wastage factors and the variety and nature of substrates, practical coverage figures may be substantially reduced.

Storage

When stored in dry air conditioned stores at temperatures between 5°C and 30°C in the original, unopened containers all products 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.

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.