Technical Data Sheet
Cretex® MC

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Extremely fast cure / low temperature acrylic-based concrete repair

Product Description

Cretex MC is a three-part acrylic resin based heavy duty floor repair material designed for use at extremely low temperatures and having very rapid curing characteristics. It offers excellent impact and chemical resistance and may be used for both interior and exterior repairs.

Typical Uses

Its extreme curing characteristics make *Cretex MC* ideal for rapid repairs to floors, steps, nosing, kerbs and expansion joint in areas of constant traffic. It may be used to improve the mechanical resistance and load-bearing characteristics of concrete floors. Cold Store Grade is ideal for use in very low temperature environments such as cold stores and exterior applications in harsh climates.

Suitable substrates:	*Cretex MC* may be applied to clean, dry concrete with a moisture content not exceeding 5%.
Colour:	*Cretex MC* is grey in colour.
Packaging:	*Cretex MC* is supplied in pre-measured 3-part units comprising a 15kg powder pack, 150gms hardener powder and 1.4L of resin.

Direction For Use

Surface Preparation

Thorough substrate preparation is essential.

Concrete repairs should be prepared with squared off edges having a 4mm minimum vertical lip. Remove all loose material - wire brushing is advisable. Sweep clean or vacuum. The surface must be free from grease, oil or contamination. Ensure concrete is dry (moisture content not exceeding 5%) before priming.

Caution - *Cretex MC* is methyl methacrylate based and has a characteristic odour during the vaporising of the solvent. Although non-toxic and non-injurious to health, this can cause tainting and OPEN food products should therefore be removed or sealed during and following application until the vapour has dispersed.

Priming

The substrate should first be primed with Polycote *MC Primer*, brushing thoroughly into the entire surface. Allow the primer to cure, normally within 40 minutes.

Mixing

Using a clean plastic bucket of at least 25L capacity, mix the resin with the 150gms hardener powder. Then add the 15kg powder and fully mix for 3 minutes using a heavy-duty slow speed drill with a 0-15 litre mixing paddle until a homogenous mix is achieved.

Ensure thorough mixing as an unmixed product will result ina poor or non-cure situation.

Tip: For Cold Store Grade - the workable life of the material will be maximised if it has been stored at a very low temperature (e.g. in the cold store itself) prior to mixing.

Application

The material should be placed immediately after mixing.

Trowel out to the required smoothness. DO NOT TAMP as this may cause the resin to rise to the surface leaving a weakened bond at the base of the repair material.

Where the depth of repair requires more than one layer (see ‘Application Thickness’on the front of this sheet) *MC Primer* should be applied between layers to aid inter-section bonding – see ‘Priming’.

For vertical repairs - where step nosings or expansion joint edges have broken away, the vertical face of the repair material should be supported to prevent slumping.

Suitable sized wooden shuttering should be covered with polythene to reduce adhesion, and should be removed as soon as the material is firm.

Cretex MC may also be used for screeding and cove-forming – please contact Polycote Technical Helpline.

Application Thickness

The recommended range of application thickness of Cretex MC is from 4mm minimum to 15mm maximum in one layer.

For repair depths exceeding 15mm, Cretex MC Deepfill should be used. This may be applied in layers of up to 50mm thick.

Application Temperature

Cretex MC is available in two temperature grades: Standard Grade for 0°C to 30°C application temperature, and Cold Store Grade for -40°C to 0°C application temperature

Physical Properties

Compressive Strength:	75kN/mm^2
Flexural strength:	24kN/mm^2
Flexural tensile strength:	27.5kN/mm^2
Tensile Strength:	7.8kN/mm^2
Beginning and deformation under pressure:	26kN/mm^2
Break elongation:	0.56%

Pot Life & Curing Time

The pot life of *Cretex MC* is 10-15 minutes depending on temperature. Initial curing time to foot traffic resistance is approximately 45 minutes. Full strength and chemical resistance is achieved after 2 hours.

Coverage

The coverage rate per 15.0kg unit of *Cretex MC* when mixed with 1.4L of resin is approximately 1m^2 at 8mm nominal thickness.

Cleaning

Tools and equipment should be cleaned whilst resin is still wet with Solvent Cleaner.

Hands and skin should be cleaned immediately with Organic Hand Cleaner.

Shelf Life & Storage

The shelf life of *Cretex MC* in unopened containers is approximately 12 months subject to conditions of storage. Store in a cool dry environment away from sources of ignition.

Health & Safety

Before using this product, please ensure you have received and read carefully both the Hazard Label applied to the container and the relevant Material Safety Data Sheets.

Any Questions

Please do not hesitate to contact us for advice regarding the use of this product or its suitability for your particular application.

Our aim is to provide all the technical help you need to make an informed choice and achieve total success.

Polycote Technical Helpline: **01234 846400**