

CEMKOTE CR

HIGH CHEMICAL RESISTANCE EPOXY COATING

CEMKOTE CR is a high performance solvent free coating designed for use where exceptional resistance to chemical attack is required.

CEMKOTE CR is based on a special Phenolic epoxy resin and a polyamine curing agent system which produces a highly cross linked polymer network. This unique system prevents permeation and subsequent attack of the coating by highly aggressive chemicals, allowing the system to be used whenever superior chemical resistance is required.

CEMKOTE CR offers excellent adhesion to steel and concrete, has outstanding resistance to a wide range of industrial chemicals even under total immersion conditions and is ideal for tanks, pipe work, containment dykes, bund areas, desulphurization units etc.

Before proceeding, please read the following information carefully to ensure that the correct application procedure is fully understood.

SURFACE PREPARATION

Steel Surfaces - All surfaces to be coated should be abrasive blast cleaned to a minimum Sa 2 ½ in accordance with BS7079 Part A I: 1989 or equivalent with a blast profile corresponding to 'Medium' in accordance with BS7079 Part C3 / ISO 8503 / I. All loose abrasive dust and debris must be blown clear or vacuum cleaned away. Steel surfaces do not require priming but should be coated within 4 hours of blast cleaning to prevent rash rusting.

Concrete Surfaces - All concrete to be coated should either be lightly abrasive blast cleaned using wet or dry abrasive techniques or alternatively high pressure water jetting. Care must be taken not to expose the aggregate in the concrete. All dust and abrasive material shall be removed from the surface prior to coating.

Concrete surfaces should have a maximum moisture content of 7% prior to any coating being applied.

Concrete surfaces should be primed with **CEMKOTE EP** in accordance with the product tech sheet.

MIXING

CEMKOTE CR is a two component material comprising base and activator components which must be mixed together prior to use.

Stir the contents of the base component, continue stirring and gradually add the total contents of the activator container, stir the combined mix until completely homogeneous.

The mixed materials should be used within 30 minutes of mixing at 20°C (68°F). This time will be reduced at higher temperatures and extended at lower temperatures.

APPLICATION

Application should not be carried out at temperatures below 5°C nor when relative humidity exceeds 85% or when the surface to be coated is less than 3°C below the dew point.

Best application results are obtained at a minimum substrate and product temperature of 20°C. For optimum chemical resistance, the system must be applied and cured at a minimum temperature of 20°C for at least 7 days prior to return to service.

CEMKOTE CR is suitable for application by brush or roller, using good quality brushes or short to medium pile rollers.

On concrete surfaces it is important to stipple the **CEMKOTE CR** into the primed surface to ensure good wetting of the surface.

For large applications **CEMKOTE CR** can be applied by dual feed hot airless spray equipment, full technical details can be supplied on request from the CMCI Technical Department.

All equipment should be cleaned IMMEDIATELY after use with CMCI Universal Cleaner.

Theoretical Coverage Rate

2.9 m² /kg at 300 microns DFT (31 ft² /litre at 12mils DFT)

Recommended Film Thickness

Wet 300 microns (12 mils)

Dry 300 microns (12 mils)

Detailed working recommendations are available from CMCI on request

PHYSICAL CONSTANTS

Mixing Ratio

2 parts base to 1 part activator by volume

Appearance

Base	Viscous colored liquid
Activator	Clear Amber liquid

Drying & Cure Times at 20°C (68°F)

Usable Life	30 minutes
Initial Set	4 ½ hours
Minimum Over coating	4 ½ hours
Maximum Over coating	24 hours
Full Cure	7 days

Volume Solids 100%

V.O.C. Nil

SHELF LIFE

Use within 5 years of purchase. Store in original sealed containers at temperatures between 5°C (40°F) and 30°C (86°F).

FOOD CONTACT

Meets USDA requirements for incidental food contact.

Chemical Resistance (At 20°C)

Unaffected by total immersion in:-
Acetic Acid up to 20%
Hydrochloric Acid up to 35%
Ortho Phosphoric Acid up to 75%
Sulphuric Acid up to 98%
Nitric Acid up to 30%
Sodium Hydroxide All Concentrations

PHYSICAL PROPERTIES

Abrasion Resistance

ASTMD 4060 60 mgm loss per
1000cycles -1kg load-
CS17wheel

Impact Resistance 2.2 joules (191/2in/lbs)
ASTMG14

Dry Heat Resistance 177° C (350°F)
ASTMD248

Water Vapour Permeability 4.69 X10⁻⁶ perm.cm
ASTMD1653

Salt Fog Resistance

ASTMB 117 Excellent, unaffected after
10,000 hrs exposure

Humidity Resistance

BS3900 Part F2- Unaffected 5,000 hrs exposure

HEALTH AND SAFETY

As long as normal good practice is observed
CEMKOTE CR can be safely used.

Protective gloves should be worn.

Vapour masks should be worn for spray
application.

A fully detailed Material Safety Data Sheet is
either included with the material or is available
on request.

PACKAGING

Supplied in 2, 5 and 20 kg packs

QUALITY STATEMENT

CMCI manufacture its products at their manufacturing facility in Saudi Arabia as per the Quality Procedures certified to conform with Quality Management System described in ISO 9000 series

CMCI provides a comprehensive technical support system for its full range of high performance construction products. CMCI also offers full technical field support to consultants, Architects, Contractors, applicators and End Users

The Technical Specification information and recommendation given are based on the current technical knowledge and the user or his representative is recommended to check the suitability of the product. CMCI reserves the right to amend the technical characteristic of the product as part of ongoing research and development. As the work execution is beyond the direct and continuous control of CMCI no guaranty and or responsibility is assumed on the performance of work completion executed with use of our products.