



Product Data Sheet
Edition 07.2008
Identification No. RC - 13



CORROBOND MCI

Corrosion inhibitive, Cement-Base, Polymer Modified Rebar Coating.

Description

CORROBOND MCI is Corrosion inhibitive, cement-base polymer modified rebar coating & bonding agent between old & new concrete. Especially designed for repairing of vertical and horizontal surfaces of concrete and masonry.

Where to use

- **CORROBOND MCI** is used for general repair purposes of damaged or spalled concrete and for the protection of steel reinforcement rods against corrosion.
- **CORROBOND MCI** is used for the restoration of concrete structures permanently subjected to severe weathering conditions.
- **CORROBOND MCI** is used as a corrosion inhibitor rebar coating and bonding mortar between old & new concrete.

Advantages

- Easy to use.
- Excellent weathering resistance.
- Rust inhibiting properties since it does not contain calcium chloride.
- Excellent adhesion to concrete and steel.
- Breathable.
- Economic since it can be applied without the need of expensive form work.
- Water repellent.
- Non-shrink mortar.

Properties

Physical Properties:

Coefficient of thermal expansion	9*10 ⁻⁶ /°C	
Setting time	180 min	Initial
	250 min	Final
Density	2 ± 0.2 gm/cm ³	Fresh wet

Mechanical Properties:

After 28 days cured at 20°C and R.H. of 70 ± 5%

E-modules	24550	N/mm ²
Adhesion strength to concrete	2.3	N/mm ²
Adhesion concrete to plain bars	5	N/mm ²
Adhesion concrete to deformed bars	10.4	N/mm ²

How to use

Surface preparation:

- Remove all damaged and contaminated concrete to reach the sound core.
- Remove additional concrete surrounding and along the reinforcement bars.
- Formation of clean-cut edges to avoid feathered edges.
- Thoroughly clean reinforcement bars to remove all rust, scale and surface contaminants. (Sand or abrasive blasting is advised.)
- If steel is heavily corroded that significant loss of section has occurred, add new steel. (Please consult a qualified engineer.)
- Clean and dampen the concrete surface with water

Mixing:

- Mix **CORROBOND MCI** with mixing liquid to a batter consistency.
- Mix together for 3 minutes using a low speed electric mixer.

Application

- Apply a slurry coat by brush over reinforcing rods and concrete.
- Slush mix under and between steel rods and make sure all cracks and voids are filled.
- Reinforcing rods should be completely surrounded by **CORROBOND MCI** in order to avoid corrosion.
- Then apply **CORROBOND MCI** to a thicker consistency as a second coat after 3 hours.
- Minimum layer thickness 1 mm.
- Each new layer should be applied within 2-3 hour.

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- If repairs are to be delayed the second layer of CORROBOND MCI to be broadcast with quartz sand.

Theoretical Coverage:
2 Kg /m²/1mm thick.

Packing:
20 Kg. Sacks powder. 5 kg pails liquid.

Storage:
CORROBOND MCI has a shelf life of 12 months if maintained in dry storage conditions (unopened sacks).

Precautions

- Use only potable water.
- Do not add extra water above stated quantities.
- In case retarded drying out is required, apply a curing agent or cementitious paint immediately after application.
- CORROBOND MCI should not be applied to substrates that is exposed to running water or which are permanently wet.
- Application should not be carried out when ambient temperature is below 5 °C.
- CORROBOND MCI should not be applied in thickness less than 10 mm or width less than 55 mm.



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SPECIALITY CHEMICALS

Health and Safety

- Use gloves when handling dry powder.
- Do not breathe dust.

Additional Information

PROKEM provides the construction industry with a comprehensive range of construction chemicals and specialty products answering the queries of modern engineers for trouble free durable structure. PROKEM designs tailor made products should there be critical application that requires specific properties rather than our main range.

For our customer's satisfaction, PROKEM extends technical services to include after sales support to assist users in a proper handling of our products.

PROKEM provides the construction industry with a comprehensive range of construction** COROBOND MCI is a new version of COROBOND 101 , It is manufactured using MCI 2005 produced by Cortec USA, whom we represent as a soul agent in Egypt