



# Nitobond® CM

## Acrylic emulsion cement modifier cum bonding agent

### Uses

Recommended primer for Fosroc cementitious repair system. For improving and bonding floor toppings, renders and mortars; repair of worn, damaged or spalled concrete. As an additive for polymer modified mortar and concrete for structural repairs.

### Advantages

Simply brush onto concrete as a primer. Single component, gauged as required.

- **High adhesion** - Provides excellent bond to concrete, masonry, stone work, plaster and block board.
- **Increased strength** - Improves tensile and flexural properties of mortar and concrete. Allows thin section applications.
- **Versatile** - Compatible with all common hydraulic cements
- **Economical** - Economical to use

### Description

Nitobond CM is a modified acrylic emulsion specially designed for use as a bonding aid and gauging liquid for cementitious systems. It is resistant to hydrolysis and can therefore be used for external applications.

Nitobond CM is the recommended primer for the Fosroc cementitious repair system.

### Technical support

Fosroc offers a technical support service to specifiers, end users and contractors, as well as on-site technical assistance in locations all over the country.

### Properties

#### Mechanical properties

Typical improvements in mechanical properties of a 1 : 3 sand/cement mortar using Nitobond CM

| Mechanical properties                                  | Control | Nitobond CM |
|--|---------|-------------|
| <b>Flexural strength (N/mm<sup>2</sup>) (B S 6319)</b> | 6       | 8           |
| <b>Adhesion to concrete</b>                            |         |             |
| <b>Slant shear bond N/mm<sup>2</sup> ( BS 6319)</b>    | 5       | 6           |

### Application instructions

#### Surface Preparation

The object of the surface preparation is to achieve a clean sound surface with a good mechanical key. All substrates should be cleaned and free of dust, plaster, oil, paint, grease, corrosion deposits, and any other deleterious substances. Laitence should be removed by mechanical means. Oil or greasy deposits should be removed by suitable means. All surfaces so treated should be thoroughly washed with clean water. Smooth substrates must be mechanically roughened e.g. by scabbling, needle gun or grit/ sand blasting to provide an mechanical key.

**Concrete repairs** : Any reinforcing steel in the repair area should be exposed around its full circumference and cleaned to remove all loose scale and corrosion deposits and then primed with Nitozinc Primer . Remove all surface dust and debris.

#### Priming

Before priming, the concrete substrate should be cleaned properly to remove any loose materials, dust etc. and thoroughly washed with high pressure water jetting. Nitobond CM should be applied when the surface is damp with no traces of standing water. For polymer modified slurry bond coat (1:1:3), mix 1 volume of Nitobond CM to 1 volume water to 3 volumes of fresh cement. In order to obtain a smooth consistency, the cement should be blended slowly into the polymer. Puddling of slurry coat must be avoided. New Concrete / Mortar should be applied when the slurry coat is wet.

#### Typical Mix design for Polymer Modified Mortar :

|             |   |
|-------------|---|
| OPC         | 50 kg   |
| Zone 2 sand | 150 kg  |
| Nitobond CM | 5 litres  |
| Water       | Add sufficient water to give required consistency |

# Nitobond<sup>®</sup> CM

## Typical mix design for Polymer Modified Concrete

|                      |             |
|----------------------|-------------|
| OPC                  | 50 kg       |
| 10mm down aggregates | 75 kg       |
| Zone II sand         | 75 kg       |
| Nitobond CM          | 5 litres    |
| Water                | 8-12 litres |

Note : Trials are recommended to optimise mix designs for different grades of concrete..

## Limitations

### As a bonding agent

Nitobond CM may exhibit less overlay time at higher temperature. In such cases as overlay mortar shall not be applied when Nitobond CM is totally dry.

Nitobond CM when used as bonding agent cannot act as a barrier coat against ingress of chloride ions from the substrate.

### Equipment cleaning

Immediately after use, wash all tools with clean water.

## Estimating

### Packaging

Nitobond CM is supplied in 5, 20 and 200 litre plastic containers.

### Coverage

Approximately 4-6m<sup>2</sup>/ litre depending on substrate if used as bonding agent. and 10% by weight of cement for addition to polymer modified concrete and mortar.

## Storage

### Shelf life

Nitobond CM has a shelf life of 6 months at 30°C. Nitobond CM should be protected from frost.

## Precautions

### Health & Safety

Nitobond CM is non toxic. However it should never be ingested and if it comes into contact with eyes, wash immediately with plenty of water and seek medical treatment.

Nitobond CM is slightly alkaline. Skin contact should be avoided. Gloves and protective clothing should be worn.

### Fire

Nitobond CM is non flammable.

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### Important note :

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