

## UniGuard 606

### Corrosion protection coating and bonding slurry for concrete repair

#### Description

**UniGuard 606** is a two component, cement-based, polymer modified corrosion protection and bonding agent system. It is specially formulated to be used as a primer / bonding slurry to bond cement-based repair mortars. **UniGuard 606** has a unique two-fold action. It ensures that cement-based repair mortars are permanently bonded whilst providing a protective matrix around reinforcing steel. **UniGuard 606** restores the alkalinity around the steel reinforcement in concrete and thus prevents further corrosion.

#### Features and benefits

- Polymer modified, excellent bond to steel reinforcement and concrete.
- Cement-based. Fully compatible with existing concrete.
- Prevents further corrosion for steel reinforcement.
- Easy to use. Pre-packed system.

#### Recommended for

**UniGuard 606** has dual applications:

- When applied as a protective coating to steel reinforcement, it restores the alkalinity around steel reinforcement forming a protective matrix thus prevent further corrosion.
- When applied as bonding slurry on prepared concrete substrates, it ensures that cement-based repair mortars are permanently bonded to concrete.

#### Composition

**UniGuard 606** Powder is composed of high strength Portland cement, selected fillers and special additives. **UniGuard 606** Liquid is composed of acrylic polymer dispersion.

#### Packaging

**UniGuard 606** is available in 3 kg set (2 kg powder + 1 kg liquid).

#### Coverage

- As a primer to steel reinforcement: 10 linear meter/kg at 1mm thickness for 16 mm diameter rebar.
- As a bonding slurry: 1 kg/m<sup>2</sup>.

#### Note:

Coverage rate takes no account of wastage and may vary according to surface condition and application method.

#### Technical data

Mixed density	1.8 kg/liter
pH	>12
Adhesion bond strength	>2 N/mm <sup>2</sup>
Pot life	60 minutes @ 20°C
Color	Grey

#### Surface preparation

Substrates to be repaired must be clean, sound, dust free and un-contaminated. Any adhesion reducing materials such as bitumen, oil, grease, paint, curing compound, mould oil, laitance or any material that may impair adhesion must be removed by suitable means. The perimeter of the damaged area should be marked and saw cut to a depth of 10 mm. Remove the defected concrete to a minimum thickness of 10 mm.

Mechanical surface preparation is recommended. Surface should be roughened and open-pored.

If steel reinforcement is corroded, extend removing the concrete ensuring that the back of the steel is exposed. Remove the rust from the steel reinforcement using suitable method such as wire brushes, suitable power tools, grit blasting ...etc. It should be cleaned to Swedish Standard SA 2 ½. If steel reinforcement is severely corroded causing significant loss in its cross section, consult structural engineer as it may require replacement and/or adding new steel bars.

Wash the prepared surface with clean water to remove any traces of soluble salts. Provide saturated surface dry condition.

### Mixing

Add the liquid component into clean container, and then add the powder component slowly while mixing. Mix using slow speed drill fitted with suitable mixing paddle. Mix for 3-5 minutes until a homogeneous lumps-free consistency is achieved. Leave the mixture for 3 minutes. Then remix for 2 minutes. Do not over mix.

### Application

Prepared steel reinforcement should be carefully coated with one coat of **UniGuard 606** within 2-4 hours using suitable brush. Avoid pin-holes application ensuring that continuous film is achieved. Leave it to dry for 4 hours minimum. Wash the prepared concrete substrate with clean water again. Apply second coat of **UniGuard 606** following the same above instruction for use.

Apply a bonding slurry coat onto the prepared concrete substrate while it is still wet but free from surface water.

Place the repair mortar on **UniGuard 606** coat while it is still wet. Force the repair mortar into the prepared substrate ensuring that there is good adhesion with the substrate and steel reinforcement.

### Cleaning

Clean tools with water immediately after use. Hardened materials should be cleaned mechanically.

### Storage and shelf life

To maintain its quality and suitability for use, the product should be stored in its unopened packaging, off the ground on pallets or similar structures, in a cool and dry environment. When stored under these recommended conditions, the product remains suitable for

use for 12 months from the manufacturing date stated on the packaging.

### Health and Safety

**UniGuard 606** Powder contains cement which may cause skin irritation. It may cause allergic skin reaction and eye damage. Avoid breathing dust. Wear protective gloves, eye goggles and clothing. In case of skin contact, wash with plenty of water. In case of eye contact, rinse continuously with water for several minutes and seek medical attention.

**UniGuard 606** Liquid is not considered dangerous according to the current regulation regarding the classification of mixtures. Dispose excess material to special waste collection point in accordance with local & national regulation. Keep out of reach of children.

For further information, please ask for Safety Data Sheet for this product.

***The most up-to-date TDS can be obtained from ACC Customer Service Department, or downloaded from our website: [www.acc.com.eg](http://www.acc.com.eg).***

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