

## Corrosion Inhibiting Impregnation

**Description** **Corro Inhibitor 650** is a surface applied, corrosion inhibiting, aqueous impregnation for concrete. **Corro Inhibitor 650** penetrates into the concrete by capillary action and diffusion (liquid and gaseous). It is attracted to the surface of the steel reinforcement, thus forming a protective layer which delays the start of corrosion and reduces the corrosion rate.

**Uses**

- \* As corrosion protection of steel reinforced concrete structures above and below ground.
- \* As treatment of reinforcing steel during repair and maintenance of reinforced concrete structures which is corroding or in danger of being corroded in areas without any visible concrete defects (Incipient modes condition)
- \* Due to its properties, **Corro Inhibitor 650** is especially suited to extend the service life of aesthetically valuable fair faced concrete.

**Advantages**

- \* Does not change the appearance of the concrete.
- \* Does not alter the water vapour diffusion capability.
- \* Economical extension of the service life of reinforced concrete structures.
- \* Easy application.

## Technical Specification

### *Product Data* **Corro Inhibitor 650**

Type Transparent liquid

Density (20°C) 1.13 kg per litre

Viscosity (20°C) 25 cps

pH-value 11

**Surface Preparation** Substrate to be free from dust, dirt, oil, grease, efflorescence and old coatings. Cleaning preferable by high-pressure water-jet. Best results will be obtained when applied on dry, absorbent substrates.

The requirements for substrates treated with **Corro Inhibitor 650** which are to be over coated later must be observed carefully.

**Consumption** Total consumption 0.3 – 0.5 kg per m<sup>3</sup>, depending on permeability of concrete. Minimum total quantity to be applied not less than 0.3 kg per m<sup>3</sup>.

**Application Temperature** Substrate and ambient temperature

- \* Minimum 5°C
- \* Maximum 35°C

**Application**

**Corro Inhibitor 650** is supplied ready for use and shall not be diluted. The product must be applied to saturation by brush, roller or low pressure hand-spray equipment.

The number of coats to be applied depends on the absorbency of the substrate.

Normally 3-5 coats are required. The material has a "soap suds" appearance when applied to the substrate. Allow the liquid to be absorbed into the substrate before applying a subsequent coat. The interval between the applications of the subsequent coats of **Corro Inhibitor 650** is between 2 – 8 hours. The waiting time increases with the number of coats. It can normally be applied in 2-3 days in a 3-5 coat application. Minimum recommended dosage must always be observed.

Concrete surfaces treated with **Corro Inhibitor 650** must be wetted down once or twice with clean water after 2 days.

**Corro Inhibitor 650** may not be applied if rain exposure is expected. Necessary drying time is approximately 6 hours.

**Overcoating****Overcoating With Coatings/Hydrophobic Agents**

If areas treated with **Corro Inhibitor 650** are to be overcoated, the following procedures has to be observed:

1. 2 days after the application of **Corro Inhibitor 650** (or later), the treated areas must be wetted once or twice with water (sprayed) and then left to dry for at least 3 days.
2. Afterwards, wash down thoroughly with a high pressure water-jet (100-150 bar) and rinse carefully.
3. Let dry for at least 3 days.

Now you can overcoat with the following coatings, taking into consideration the respective substrate conditions:

- \* Gem Seal 600, Gem Seal 1000 or Top Gard PU Enamel Metallic or STD Epo Bond WFC, Epo Bond FC & Build Bond FC

**Overcoating with Cementitious Products****\* Patch repair**

1. Let areas treated with **Corro Inhibitor 650** dry for 1 – 3 days.
2. Rinse areas to be repaired with a high pressure water-jet (approximately 80 bar). As a bonding agent for cementitious repair mortars, only Cem Strength or Cem Grout range or Polymer Modified Cementitious may be used.

**\* Pore sealing of whole areas:**

1. Let areas treated with **Corro Inhibitor 650** dry for 1 – 3 days.
2. Wet with water and let dry again. Clean with high pressure water-jet (approximately 80 bar). Use exclusively Epo Bond Putty, Epo Bond Adhesive or Epo Bond Mortar or Polymer Modified Cementitious may be used. Where required, Bond Con or Latex BA as cementitious sealers.

**After Treatment**

Fair faced concrete, for examples facades, with high aesthetic requirements, must be cleaned with high pressure water-jet (approximately 100 bar) after 3 days or later.

**Important Notes**

- \* **Corro Inhibitor 650** should not be used if the chloride content at reinforcement depth is higher than 2% (by weight of cement)
- \* Visible concrete defects (spalling, cracks) must be repaired using conventional repair methods (removal of damaged concrete, treatment of reinforcement, reprofiling etc.)
- \* Depending on substrate conditions, the application of **Corro Inhibitor 650** may lead to a slight darkening of the surface. Absorbent adjacent parts of the structure to be treated (brick, natural stone) as well as metals (especially aluminium, zinc and copper). Also lacquers and coatings must be protected.
- \* The surface treatment has to be executed with cold water.

**Packaging**

23 litre pails and 200 litre drums

**Safety Information**

Detailed safety information is contained in each material safety data safety sheet, which can be obtained from our sales offices.

**Storage**

18 months from the date of production when stored in original unopened packaging in a cool dry place.

**Handling Precautions**

Wash off any Corro Inhibitor 650 on the skin with plenty of water before it dries. During mixing and application ensure adequate ventilation since the silicone component contains active ingredient which is volatile and may cause eye watering in confined spaces. Avoid generation of airborne dust during mixing. Corro Inhibitor 650 contains corrosive inhibitor and, therefore, in line with current legislation, is classified as irritating to eyes and skin. For this reason the following precautions should be observed: -

Avoid contact with the skin and eyes; in case of contact with the eyes, rinse immediately with plenty of water and seek medical advice; wear suitable gloves and keep the product out of the reach of children.

**The General Term & Conditions**

All recommendations for use of our product, whether given by us in writing, verbally, or to be implied from the results of tests carried out by us are based on the current state of our knowledge. Notwithstanding any such recommendations the Buyer shall remain responsible for satisfying himself that the products as supplied by us are suitable for this intended process or purpose. Since we cannot control the application, use or processing of the products, we cannot accept responsibility therefore. The Buyer shall ensure that the intended use of the products will not infringe any third party's intellectual property rights. We warrant that our products are free from defects in accordance with and subject to our general conditions of supply.

The above mentioned details Specified key data are individually checked throughout, guarantee, and included in the certificates of Analysis (CoAs). & Typical key data are spot checked, the value are typical for the product and are indicated for information only. The values are not guaranteed or included in the CoAs.

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