

**METHOD STATEMENT****Condur CF Fabric****Unidirectional Woven Carbon Fibre Fabric****Application of Condur CF Fabric Using Condur CF Impregnation****DESCRIPTION**

A unidirectional woven Carbon Fibre Fabric for structural strengthening. Typical uses include strengthening of structures where there are load increases anticipated, structural repairs, modification of the standard system or modifying errors in planning or construction.

**EQUIPMENT REQUIREMENTS**

The following equipment shall be used:

- Grinders
- Hammer
- Slow speed mixer (300 r.p.m.)
- Short knap roller or paint brush.
- Plastic impregnating roller.
- Safety kit; Hand gloves, goggles, masks, helmet, safety shoes etc.

**PREPARATION****1) Substrate Preparation:**

Ensure that the concrete surface is clean and sound. Remove all contaminants including coatings, grease, oil, dirt, excessive laitance, salts and unsound material by grinding, hammering, etc. Where necessary degrease with chemical degreaser.

Any structural cracks should be injected with **Condur SC** epoxy resin injection material.

Note:- Unsound deteriorated concrete that occurred as a result of corrosion of rebars, needs to be removed to behind rebar. Corroded rebar to be cleaned with rust remover. Apply Congard Zinc on cleaned rebar as a corrosion protective coating. Apply **Condur EA2** as a bonding bridge on the prepared concrete surface. Apply **Conpatch 600 Series** over **Condur EA2** bonding bridge to bring back the profile of concrete. In the case of porous substrates finish the surface defects such as pinholes with **Condur FC**

**2) Mixing: Condur CF Impregnation**

Part A : Part B = 2 : 1 by weight

Mix Part A and B together for at least 3 minutes with a slow speed mixer (max.300 rpm). Avoid aeration while mixing. Mix only the amount that can be used within the pot life.

## Method Statement - Condur CF Fabric

### APPLICATION

1. Precut required quantities of **Condur CF Fabric** before application, consider additional extra quantities for over lapping as required.
2. Apply the first layer **Condur CF Impregnation** to the concrete substrate with a roller or brush at the coverage rate of 0.6 kg/m<sup>2</sup> to seal the concrete substrate.
3. Apply the precut **Condur CF Fabric** firmly over the **Condur CF Impregnation**.
4. Roll the surface of **Condur CF Fabric** carefully with a plastic impregnating roller in the direction of fibres to completely remove entrapped air.
5. This ensures proper impregnation of the **Condur CF Impregnation** into the **Condur CF fabric**.
6. After 2 - 4 hrs @23°C, roller apply a second layer of **Condur CF Impregnation** at the coverage rate of 0.25 kg/m<sup>2</sup> to completely seal the surface of **Condur CF Fabric**.
7. After full cure finish with a coating if required such as **Elastoclad** (UV resistant 100% acrylic elastomeric coating)

#### Note :

- In the case of additional layers of **Condur CF Fabric**, the previous applied layer of **Condur CF Fabric** on **Condur CF Impregnation** should be cured for at least 24 hrs prior to the second layer application.
- **Condur CF system** should only be applied by specialist applicators who have had training in the installation of this system. Cormix International can provide such training & a list of approved applicators.

#### Notes on Applications and Limitations

- Samples: - Witness samples should be made at site and tested in a laboratory to ensure the material meets the responsible designer's requirement.
- The substrate & ambient temperature should be between 8°C and 36°C. The substrate temperature should be at least 3°C above the dew point.
- The product should only be used by experienced professionals. In hot or cold conditions precondition the product 24 hours before use.
- Protect from rain for 24 hours after application.
- Consult a structural engineer for load calculations & design.
- A qualified structural engineer must be responsible for designing the works. Care must be taken in selecting suitably experienced and trained contractors
- Protect from permanent exposure to direct sunlight moisture & or water.

### CONSUMPTION RATE

**Condur CF Impregnation** : Approx. 0.6 kg/m<sup>2</sup> per coat. (First Layer on Concrete)  
Approx. 0.25 kg/m<sup>2</sup> per coat. (Following layer on Concrete **Condur CF Fabric**)

### CURING

Full cure of **Condur CF Impregnation** takes 7 days @ 23°C.  
At lower temperatures, full cure will require longer time to cure.

### CLEANING

All tools and equipment should be cleaned immediately after use with Cormix Cleaner. Hardened material can only be removed mechanically.

**Method Statement - Condur CF Fabric****PACKAGING**

**Condur CF Impregnation:** 10.5 kg set

**Condur CF Fabric:**

Condur CF Fabric CJ 23T = 600 mm x 50 m (30 sqm.) per roll.

Condur CF Fabric CJ 30T = 500 mm x 100 m (50 sqm.) per roll.

**STORAGE & SHELF LIFE**

**Condur CF Fabric :**

The shelf life is 24 months from date of manufacture if stored correctly in original undamaged packaging at temperatures between 5°C-36°C protect from sunlight.

**Condur CF Impregnation :**

The shelf life of 12 months from date of production stored properly in original unopened containers in dry conditions at temperatures between +5°C to 35°C. Protect from sunlight.

**HEALTH & SAFETY**

Prolonged and repeated skin contact with epoxy resins and curing agents may cause dermatitis in persons sensitive to these products. Gloves, barrier creams, protective clothing and eye protection should be worn when handling these products. If poisoning occurs, contact a doctor or Poisons Information Centre. If swallowed, do NOT induce vomiting-give a glass of water. If in eyes, hold eyes open, flood with water for at least 15 minutes. If skin contact occurs, remove contaminated clothing and wash skin thoroughly. For more details information please refer to MSDS.

For further advice, on site training and demonstrations, please contact  
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