

METHOD STATEMENT

Condur CF Plate

Carbon Fibre Reinforcement Plate System Application of Condur CF Plate Using Condur CF Adhesive

DESCRIPTION



Condur CF Plate is a carbon fibre reinforced polymer laminate used for strengthening structures bonded externally by **Condur CF Adhesive**.

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
- Notched trowel (or) Spatula / Scraper
- Safety kits: hand glove, Goggles Masks, Helmet, Safety Shoes etc.

PREPARATION

1. Surface preparation

Ensure that the concrete surface is clean and sound. Remove all contaminates 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.

The recommended minimum concrete pull off test after surface preparation is 1.5 N/mm² and should be tested.

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2. MIXING

Mix part A and B of **Condur CF Adhesive** together at the ratio 1:1 by weight for at least 3 minutes with a (300-400 r.p.m.) slow speed electric drill. Avoid entraining air. Use all material within its pot life. The greater the quantity mixed the shorter will be the pot life. The pot life is longer at lower temperatures & shorter at higher temperatures. The pot life of **Condur CF Adhesive** is typically 50 minutes @23° C.

APPLICATION**Condur CF Plate**

Apply **Condur CF Adhesive** to the substrate with a notched trowel or spatula/scrapper at a thickness of approximately 1 mm. Clean the side of **Condur CF YC-CFRP(S) Plate** to be applied to the concrete and apply 1-2 mm thickness of **Condur CF Adhesive** to the plate using a spatula.

Within the open time of the **Condur CF Adhesive** place the **Condur CF YC-CFRP(S) Plate** on to the prepared sub-strate and press firmly into the Adhesive using a hard rubber roller. Ensure excess material is forced out of both sides of the plate.

In case of **Condur CF YC-CFRP(S) Plate** intersections allow the 1st application to harden before application of 2nd plate and clean the over lapping plate surface before application of Condur CF Adhesive.

Note:

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.

Samples: - Witness samples should be made at site and tested in a laboratory to ensure the material meets the responsible designer's requirement.

Dew Point: Substrate temperature should be at least 3°C above the dew point.

The ambient temperature should be above 8°C.

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 Adhesive: Approx 1.5 kg/m² @ 1mm Thickness

CURING

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

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CLEANING

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

PACKAGING

Condur CF Adhesive: 10 kg set

Condur CF Plate (Standard Size):

Condur CF Plate YCFRP (S) = 1.2 mm x 100 mm x 100 m (10m² per roll)

Condur CF Plate YCFRP (S) = 1.4 mm x 100 mm x 100 m (10m² per roll)

STORAGE & SHELF LIFE**Condur CF Plate:**

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 Adhesive:

The shelf life is 12 months from date of production stores 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
Exclusive Distributor for Cormix International Ltd.

CREST COATINGS (AUSTRALIA) PTY. LTD.

13 Newmarket Lane, Epping, Victoria 3076, Australia

Tel. +61 3 9945 2700

Fax. +61 3 9945 2799

<http://www.crestcoatings.com.au>

E-mail: enquiries@crestcoatings.com.au