

## **Condur® CF Adhesive**

## A SOLVENT FREE MOISTURE INSENSITIVE ADHESIVE FOR BONDING CONDUR CF REINFORCEMENT

## **DESCRIPTION**

A two component Solvent Free, 100% Solids, moisture insensitive structural Thixotropic Epoxy Adhesive.

## **USES & ADVANTAGES**

An adhesive for the bonding of  ${\bf Condur}\ {\bf CF}$  structural reinforcement plates.

## Advantages include:

- High early strength without shrinkage.
- 100% Solids (No Volatile Organic Content)
- · High strength.
- · Impermeable to liquids.
- Two pack colour coding gives visual check on correct mixing.
- · Non sag easy to apply.
- Unaffected by wide range of acids, alkalis and industrial chemicals.
- · High mechanical, abrasion and shock resistance.
- · Excellent adhesion to many substrates.
- · No primer required.

### **PROPERTIES**

Appearance: Colour Part A: black paste

Part B : white paste

Mix Ratio: 1:1 by weight

 Pot Life :
 50 min @23°C ASTM C881

 Density Mixed :
 1.5±0.05 Kg/Lit @23+°C

Sag: Non sag on vertical surface up to 5 mm thickness @ 35°C

(F.I.P.)

70-80 min @ 23°C Open time: Full Cure: 7 Days Compressive Strength: @23°C 1 day 75 N/mm<sup>2</sup> ASTM C579 85 N/mm<sup>2</sup> ASTM C579 7 days Tensile Strength: @23°C 24.7 N/mm<sup>2</sup> ASTM D638 7 days Flexural Strength: @23°C 42.9 N/mm<sup>2</sup> ASTM C580 7 days Bond Strength by Slant Shear: @23°C >4 N/mm<sup>2</sup> ASTM C882 7 days (Concrete failure)

## SYSTEM AND APPLICATION DETAILS

### 1) Substrate 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.

## 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 temperatures below 15 °C & shorter at high temperatures above 30 °C. The pot life of **Condur CF Adhesive** is typically 50 minutes @23°C.

# 3) Condur CF adhesive application on Condur CF plate

Apply **Condur CF Adhesive** to the substrate with a notched trowel or spatula/scraper 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 substrate and press the plate 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 1<sup>st</sup> application to harden before application of 2<sup>nd</sup> 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.

## **CLEANING**

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

<sup>\*\*</sup>Properties are typical under laboratory conditions and do not constitute a specification.



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### LIMITATIONS

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

**Dew Point:** The 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 is selecting suitably experienced and trained contractors

Protect from permanent exposure to direct sunlight moisture & or water.

### **CONSUMPTION RATE**

Approximately 1.5 kg/m<sup>2</sup> @ 1 mm Thickness

### **PACKAGING**

Condur CF Adhesive : 10 kg set

## STORAGE & SHELF LIFE

Condur CF adhesive has a shelf life of 12 months from date of production if stored properly in original unopened, containers in dry conditions at temperature between +5°C to 35°C protected from direct sunlight.

## **HEALTH & SAFETY**

Please consult the latest Safety Data Sheet available on request.

### **TECHNICAL SERVICE**

The Cormix International Technical Service Department is available to assist you in the correct use of our products and its resources are at your disposal entirely without obligation.

## **QUALITY ASSURANCE**

ISO 9001: 2015 verified by TUV Nord.

### **DISCLAIMER**

Performance data is achieved testing in accordance with International Standards. Testing by others may result in different results from those published as a result of external factors such as poor sampling, incorrect mixing, varying temperatures, curing, crushing procedures etc. Cormix does not take responsibility nor need to defend others testing that does not achieve the published data. The user must test the products suitability for the intended application and purpose. Cormix reserves the right to change the properties of the product.

Site conditions and differences in materials are such that no warranty or fitness for a particular purpose, nor liability can be inferred from the published data sheet, written recommendations or from other advise offered.

## **CONTACT DETAILS**

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