

# Condur<sup>®</sup> 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. Complies to EN1504 Part 9 and EN1504 Part 4

- Principle 4 : Structural Strengthening (SS).  
Method 4.1 - Adding or replacing embedded or external reinforcing steel bars.  
Method 4.3 - Plate Bonding.

## USES & ADVANTAGES

An adhesive for the bonding of **Condur 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

<b>Appearance :</b>	Colour	Part A : black paste Part B : white paste
<b>Mix Ratio:</b>		1:1 by weight
<b>Pot Life :</b>		50 min @23°C ASTM C881
<b>Density Mixed :</b>		1.5±0.05 Kg/Lit @23+°C
<b>Sag :</b>		Non sag on vertical surface up to 5 mm thickness @ 35°C (F.I.P.)
<b>Open time :</b>		70-80 min @ 23°C
<b>Full Cure :</b>		7 Days @23°C
<b>Compressive Strength :</b>		@23°C
1 day	75 N/mm <sup>2</sup>	ASTM C579
7 days	85 N/mm <sup>2</sup>	ASTM C579
<b>Tensile Strength :</b>		@23°C
7 days	24.7 N/mm <sup>2</sup>	ASTM D638
<b>Flexural Strength :</b>		@23°C
7 days	42.9 N/mm <sup>2</sup>	ASTM C580
<b>Bond Strength by Slant Shear :</b>		@23°C
7 days	>4 N/mm <sup>2</sup>	ASTM C882
		(Concrete failure)

\*\*Properties are typical under laboratory conditions and do not constitute a specification.

## 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 **Contite PUE300/301** moisture tolerant polyurethane resin.

### 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 ST** on cleaned rebar as a corrosion protective coating. Apply **Condur EA2** as a bonding bridge on the prepared concrete surface. Apply **Conpatch 600MCI** 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/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 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.

## LIMITATIONS

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

# Condur® CF Adhesive

A SOLVENT FREE MOISTURE INSENTIVE ADHESIVE FOR BONDING CONDUR CF REINFORCEMENT

**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 in 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

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.

## 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.

ISO 14001 : 2015 verified by Lloyd's Register International.

## 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 advice offered.

## CONTACT DETAILS

### Cormix International Limited

89 Romklao Rd., Sansab, Minburi, Bangkok 10510

Tel. (66 2) 917 3955-8, 117 3396

Fax. (66 2) 917 3959

<http://www.cormix.com>

E-mail: [info@cormix.com](mailto:info@cormix.com)