

Condur[®] CF (HP) Impregnation

A TWO PART SOLVENT FREE HIGH PERFORMANCE EPOXY IMPREGNATION SYSTEM

DESCRIPTION

A two part solvent free, 100% solids, high performance epoxy impregnation system for structural strengthening of concrete columns, roads & bridges, damaged old structures etc.

Complies to EN1504 Part 9 and EN1504 Part 4

- Principle 4 : Structural Strengthening (SS).
Method 4.3 - Plate Bonding.

USES & ADVANTAGES

Condur CF (HP) Impregnation is used in conjunction with Condur CF(HP) Fabric reinforcement system

Advantages include:

- Easy application by roller.
- 100% Solids (No Volatile Organic Content)
- Excellent adhesion to various substrates.
- Very good chemical resistance.
- Easy to mix.
- Very high mechanical properties which increases load bearing capacity of structure.

PROPERTIES

Appearance :	Part A : Clear liquid	
	Part B : Yellow brown liquid	
Mix Ratio :	Part A : Part B = 2 : 1 by weight	
Density Mixed :	Approx. 1.10kg/ltr @23°C	
Tensile Strength :	@23°C	
7 days	55 N/mm ²	ASTM D638
Bond Strength :	@23°C	
7 days	≥ 2 N/mm ²	ASTM D4541
(Concrete failure)		
Flexural Strength :	@23°C	
7 days	101 N/mm ²	ASTM C580
Curing Time :	7 Days	
Pot Life :	Approx. 50-60minutes.@23°C	
ASTM C881		
Over Coating Time :	2-6 hrs	@23°C
Tensile Modulus of Elasticity:	2,700 MPa	
ASTM D638		
Viscosity:	2500 CPs @23°C	

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

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** or **Contite PUE300/301** 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** or **Congard ST** 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 substrate, finish the surface defects such as pinholes with **Condur FC**.

PRIMING

Mix part A and part B of **Condur CF (HP) Impregnation** and apply at 0.2 litre/m² (or) 0.22 kg/m² by roller or brush. The pot life is typically 50-60 minutes primer will dry within 2-6 hrs.

Note: if substrate moisture is >4%, use **Floorgard Moisture Barrier** as primer. Refer to TDS for More information.

MIXING

Part A : Part B = 2 : 1 by weight

Mix Part A and B of **Condur CF (HP) Impregnation** 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. **Condur CF (HP)**

Impregnation should be applied only after 12 hrs minimum curing of **Condur CF (HP) Impregnation** used as primer.

APPLICATION

- Apply the first layer **Condur CF(HP) Impregnation** to the concrete substrate with a roller or brush at the coverage rate of approx.0.65 kg/m²

- Apply the precut **Condur CF(HP) Fabric** firmly over the **Condur CF(HP) Impregnation** and remove entrapped air by rolling the surface of **Condur CF(HP) Fabric** 2-3 times in the direction in which it is being placed. This ensures proper impregnation of the **Condur CF(HP) Impregnation** into the **Condur CF(HP) fabric**.

- After 2 -6 hrs @23°C, roller apply a second layer of **Condur CF(HP) Impregnation** at the coverage rate of approx.0.25 kg/m² to completely seal the surface of **Condur CF(HP) Fabric**.

Note : Rough substrates consume more material. In the case of additional layers of **Condur CF(HP) Fabric**, the previous applied layer of **Condur CF(HP) Fabric & Impregnation** should be cured for at least 24 hrs prior to the second layer application.

- Full cure of the epoxy resin takes 7 days at 23°C at lower temperatures full cure will require longer time.

- Finish with a coating if required such as **Elastoclad** (UV resistant 100% acrylic elastomeric anti carbonation coating).

Note : **Condur CF(HP) 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.

LIMITATIONS

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

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.

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CONSUMPTION RATE

Approximately 0.65 kg/m² for 1st layer.
Approximately 0.25 kg/m² for 2nd layer.

PACKAGING

15 kgs set
Other pack sizes available as per request.

STORAGE & SHELF LIFE

Condur CF(HP) Impregnation has a 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

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.
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.

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