

Condur® FRM

3 COMPONENT MOISTURE INSENSITIVE HIGH EARLY STRENGTH, FREEZER ROOM REPAIR MORTAR

DESCRIPTION

A solvent free 3 component high early strength freezer room repair mortar which when mixed produces a pourable material with excellent adhesion to concrete surfaces at temperatures down to -25°C.

USES & ADVANTAGES

Condur FRM is a high early strength freezer room repair mortar which can be applied down to -25°C in Freezer rooms, Cool rooms & Food Processing Plants. **Condur FRM** is produced for speedy and permanent patching repairs of concrete surfaces.

Advantages include:-

- High early strength.
- Fuel and chemical resistance.
- Ultra-Fast setting & rapid hardening.
- Can be applied down to -25°C.
- High mechanical strength.
- Moisture & Damp tolerant.
- Curing is not affected by high humidity.
- Abrasion & Impact resistant.
- Vibration resistant.
- Strong bond to metal & concrete.

PROPERTIES

Components:	3 (Base, Hardener & Filler)
Form:	Pourable
Appearance:	Grey (when mixed)
Mixed Density (kg/ltr):	2.35 ± 0.05
Pot Life:	< 10 mins @25°C < 20 mins @20°C

The pot life at 20 - 25°C is 10 - 20 minutes.

Place immediately after mixing in the prepared repair area.

Compressive Strength:

ASTM C579, Method B

1 hrs:	≥35 N/mm ²
3 hrs:	≥65 N/mm ²
1 days:	≥75 N/mm ²
7 days:	≥85 N/mm ²

Flexural Strength: 7 days ≥30 N/mm²

ASTM C580

Bond Strength: 7 days ≥ 2 N/mm²
(concrete failure)

Shore D Hardness: 7 days ≥70 N/mm²

ASTM D2240

Bond Strength: 7 days ≥ 2 N/mm²
(concrete failure)

Chemical resistance (ASTM D543):

Citric Acid 10%	Excellent
Tartaric Acid 10%	Excellent
Acetic Acid 5%	Satisfactory
Sodium Hydroxide 50%	Excellent
Diesel Fuel / Petrol	Very good
Sugar Solutions	Very good
Lactic Acid	Very good
Hydrocarbons	Very good
Jet Fuels	Very good

Application Temperature: -25°C to 35°C

Thickness Min : 10 mm.

Max : 50 mm

Notes:

- The above data is typical under laboratory conditions @25°C to -25°C and does not constitute a specification. Field trials are recommended.
- The working time starts when the hardener is added to the resin material. Do not let the resin and hardener stand still without adding aggregates which may result in shorter working time.
- Working time will vary depending on the temperature and the quantity mixed. To get the optimum working time keep the material shaded and in a cool place.
- Strengths are typical of standard mix ratios.
- To obtain performance characteristics stated in this data sheet, the mixing ratio must be maintained.
- For temperatures below -25°C consult with Cormix.

CHEMICAL RESISTANCE

Condur FRM resists non oxidising mineral acids and salts, caustics, dilute oxidising acids and salts, plus some organic acids and solvents. Please refer to Cormix International Ltd. for more information.

MIX RATIO

Part A : Part B : Part C = 3 : 1 : 17 by weight.

SUBSTRATE PREPARATION

Surface preparation is important. All surfaces should be clean, free of ice, standing water, grease and all loosely adhering particles. Cement laitance should be removed by mechanical means. Roughen surfaces with chipping till sound concrete surface is achieved to ensure good bonding. Steel surfaces should be grit blasted to white metal. Concrete surfaces should be chipped to expose aggregates to ensure laitance and weak particles are removed.

PRIMING

No priming required.

For wet & damp conditions, heat the substrate with hot air blower to remove free standing water /Ice from the concrete surface.

MIXING

Condition the product @ 20-25°C prior to mixing. Mix component Part A and Part B thoroughly with a slow speed drill for 2 minutes. (Max 400 R.P.M.) Then add Part C and mix for 3 minutes until a homogeneous mortar is achieved.

APPLICATION

Pour the material and trowel firmly into place. In freezing conditions cover the repair area with Insulation to protect from direct contact with frost & water to avoid surface tackiness. For large volumes apply in layers not exceeding 50 mm thickness, ensuring the previous layers have hardened and cooled. Contact Cormix International Ltd. for advice on difficult applications.

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- If repairing in multiple layers, it is necessary to sprinkle a small amount of 2.5 mm aggregate over the first layer before the mortar reaches its setting time. Before placement of 2nd layer brush out loose aggregates from the 1st pour. Another method is to scabble gently the top surface and make it rough when the grout is near to its setting time.

FINISHING

A smooth finish may be achieved before the product reaches its setting time by using a steel trowel to level the surface.

CURING

- Curing time will depend on the ambient and substrate temperature.
- Setting time @25°C = 30 Minutes
- Setting time @-25°C = 1 hour
Trafficable time @-25°C = 3 hours
- Protect the repair by insulation, during the curing time.

CLEANING

Clean all tools and equipment immediately with Cormix Cleaner.

IMPORTANT NOTES

The minimum and maximum substrate application temperature should be -25°C and 35°C respectively. For temperatures above 5°C, maintain patch repair dimensions @ Length < 500 mm, Width < 300 mm & Depth < 50 mm. For additional information contact Cormix International Technical Service Department.

PACKAGING

A+B+C = 21 kg. (Part A = 3 kg, Part B = 1 kg and Part C = 17 kg) premeasured sets or larger packaging is available upon request.

STORAGE & SHELF LIFE

Store in dry conditions between 10-35°C. The shelf life is 12 months when stored correctly in unopened original containers.

HEALTH & SAFETY

Avoid contact with skin and eyes and avoid breathing vapor. Use only in well-ventilated areas away from heat sparks or naked flame. Wear suitable protective clothing, gloves and eye protection when mixing or using. 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, flush with water for at least 15 minutes and see a doctor. If skin contact occurs, remove contaminated clothing and wash skin thoroughly with soap and water.

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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