

## **Technical Datasheet (TDS)**

# Ferrorez 711

## 2 PART THIXOTROPIC, WATER-BASED EPOXY ADHESIVE



Ferrorez 711 is a moisture insensitive thixotropic 2 components epoxy mortar, based on high quality epoxy resin, selected quartz sand and special additives, designed for use in rainy or high humidity climate as a general purpose construction adhesive in non-critical rebar and repair works and such as masonry wall steel rebar.

#### **Advantages**

- Good adhesion in damp or dry concrete surface.
- No primer required.
- Waterproof and chemical resistance.
- Thixotropic easy for patching repair work.
- No shrinkage after cured.
- Good abrasion resistance.
- Indoor and outdoor use

#### Standards and compliances

Ferrorez 711 is manufactured under standard which conform to TIS. 24-2536, ASTM D 695

#### Area of use

AS A STRUCTURAL ADHESIVE

- Use in non-critical structural bonding steel to concrete, natural stone,wood,marble, fiber cement etc.
   AS A EPOXY REPAIR MORTAR
- Use for imperfect concrete floor patching repair such as hole,void,non-moving crack patching.

#### **Physical properties**

Properties	Value
Colour (A+B mixed)	Gray
Density (A+B mixed)	Approx. 1.9 kg./litre
Sag Flow in Vertical	Non sag upto 15 mm. thickness
Shrinkage	Non shrink
Pot life 30 °C	Approx. 35 minutes

#### **Technical properties**

Properties	Values	Standards
Compressive Strength 7 Days	50 Mpa	ASTM C 109
Bond Strength	4 Mpa	ASTM C 882

#### PUL- OFF TEST in concrete rebar diameter of steel rod max.12 mm.

Type of steel	Diameter (mm.)	Concrete Dimension	Rebar distance	Bond force max. (N)	Bond area (cm²)	Max.bonding force (kg./cm²)	Result
SD 30	12	Ø15x30 cm.	12	67,000	45.23	150.0	Break at steel

## **Method statement**

#### Ferrorez 711

## **Mixing**

- Pour Part B (hardener) into Part A (Base 2:1 by weight) and mix with low speed paddle mixer (400 600 rpm.) 2-3 minute until reach homogeneous. Use the mixture at once and use all within 30 minutes.
- It is NOT recommended to mix in quantity by separated half set because the incorrect proportion between part A and B will effect to final performance of Ferrorez 711 such as bond and compressive strenght and also pot life.

#### Method of steel rebar and coverage

Hole diameter				Working procedure
Steel rod diameter	8 mm.	10 mm.	12 mm.	1) Drill by electric driller and blow dust
Diameter of drilled hole	10x80	13x100	15x120	2) Put epoxy 2/3 of drilled hole depth (mm.)
Approx. Coverage/1 set (2 kg.)	3 hole/ set	25 hole/ set	20 hole/ set	Insert steel rod and twist left     Dry 24 hours prior to brick works.



#### **Limitations/Cautions**

- Concrete substrate must clean dry and strong with minimum compressive strength not less than 210 ksc.
- Concrete substrate must clean without contaminants such as grease, oil, paint, curing compound, etc.
- Steel substrate must new clean without rust.

#### **Technical support**

Customers can contact the sales department of the company at sale@ferroproduct.co.th to inquire about product usage methods. Furthermore they can also request information or organize the following activities:

- 1. Request for the latest updated data sheet.
- 2. Request for the sale conditions document and the product price list.
- Schedule a technical staff visit to demonstrate the products at the customer's job site by filling out the "Demonstration request form" prior to the product purchase.
- 4. Schedule a technical staff visit to provide product usage training to the customer's workers at the job site by filling out the "Worker training request form".
- 5. Schedule training for the customer's foreman at the company's training center (Ferro training center) by filling out the (Foreman training request form).

#### Coverage

Approx. 1.9 kg./m2/1 mm. Mixing ratio A: B, 2: 1 by weight

## **Package**

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1 kg./set (Part A = 0.67 kg. Part B = 0.33 kg.)
2 kg./set (Part A = 1.34 kg. Part B = 0.66 kg.)
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#### **Cleaning tools**

Clean all tools with water while epoxy is still wet.
Use mechanical way such as chiseling in case of dried epoxy.

## **Storage**

- Shelf life 1 year in unopened container.
- Keep in dry shaded area, temperature 23°C + 2%, Humidity 50 + 5%RH (Conform to ISO 554)



#### **Health and safety instructions**

- May cause health effect:
- Eye: May cause eye irritation.
- Skin: May cause skin irritation.
- Ingestion: May cause vomiting or nausea if swallowed.
- Inhalation: No serious effect.



- Inhalation: Move to fresh air, oxygen support if necessay. In case of breathing difficulty is occurred continuously, should taken care by medical treament.
- Eye: Flush with clean water at least 15 minute. if irritation still exist, see medical attention.
- Skin: Clean the irritation area with mild soap and water, if burning is still exist, see physician immedieatly.
- Ingestion: Do not induce vomiting. call physician immedieatly.

#### **Disposal**

Ferrorez 711 compose of polyamide epoxy resin do not dispose the residue into public drain.

#### **Transportation and shipping data**

THAI DOT: Not regulated. IMO: Not regulated. USA DOT: Not regulated. IATA: Not regulated.

RID/ADR: Not regulated.



#### Size

• 1 kg./set (A+B)

Code FG-IC-8858915271006

Part A = 0.67 kg.

Part B = 0.33 kg.

• 2 kg./set (A+B)

Code FG-IC-8858915271020

Part A = 1.34 kg.

Part B = 0.66 kg.

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Product warranty: The company is pleased to replace any product that is clearly proven to be defective due to manufacturing processes with a new products of equal value to the portion that is defective. Refunds are not available. Customers must be notify us of replacement within 7 days from the order date. Additionally customers can't claim damages resulting from direct or indirect using of the materials, as well as delays in delivery by the company. Furthermore replacements can't be made for errors in using that arise from customers negligence without consulting the sales staff or technical documentation provided by the company. The company reserves the right to amend manufacturing formulas or new packaging designs without prior notice. Therefore customers must be request the data sheet and sale conditions from the company before actual using and before each purchase. By doing so the company assumes that customers have understood and agreed to the company's sale conditions before using. (Company products are only allowed for using by individuals who have completed training provided by the company). \*For further data please refer to the sale conditions from the company's sale department at sale@ferroproduct.co.th.



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