

# **Technical Datasheet (TDS)**

# Ferrorez 717 Kit

#### CRACK INJECTION KIT FOR CONCRETE REPAIR



Ferrorez 717/KIT is a 2 component crack injection kit. Suitable for the injection to grout the cracks of concrete structure from crack and concrete cavity width 0.1-2 mm. with features high infiltration. Helps resistance leakage in the cracks and cement the concrete to have the ability to bear the compressive strength similar to the original with cylinder device and decorative mortar.

## **Advantages**

- High adhesion on concrete and steel substrate.
- Low viscosity and penetrates well into concrete.
- High bonding strength.
- Non-Shrink.
- Waterproof and acid resistance.

#### Standards and compliances

Ferrorez 717/KIT is manufactured under standard meets to ASTM C109/C109M-20a, ASTM C 882 (Tested according to ASTM C 881-78 Type I, Grade 1 Class B+C).

#### Area of use

- Repair concrete crack width 0.1-2 mm.
- Car park concrete floor.
- Industrial floor.
- Precast concrete wall crack repair.
- Is a crack repair system. Helps when pouring over with concrete road resurfacing mortar (Ferrocrete 216). The cracks that occur on the surface of Ferrocrete 216 are smaller.

## **Physical properties**

Properties	Value
Component A+B	Clear liquid
Specific gravity A+B (Approx.)	1+0.01
Viscosity (A+B) 30 °C Grade 1 : Low viscosity (2,000 cps. Max.), cps. (Approx.)	240+20 cps.

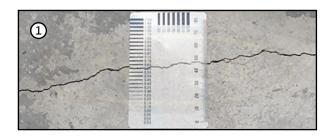
## **Technical properties**

Properties	Values	Standards
Compressive strength, ksc. (Approx.) - At 7 days - At 28 days	>600 ksc. >900 ksc.	ASTM C109/C109M-20a
Bond strength at 7 days, ksc. (Approx.)	187 ksc.	ASTM C 882

# **Method statement**

# **Ferrorez 717 Kit**

## **Step 1 Surface Preparation**



1) Measure the crack width with crack scale from 0.1-2 mm.



 Calculate the distance to place the plates (Estimate distance 20-30 cm.) and open drop point Ferrorez 717/CP/50 ml. (Cylinder 50 ml. & plate) open crack surface at the plate point by chiseling.



3) Use Ferrorez 717/GL/600 g. Fast-Setting glue for injection plate (Size 600 g./set) mixing ratio A: B1:1 fast-setting 2-3 hours.





4) Plastered Ferrorez 717/GL/600 g. Fast-Setting glue for injection plate (Size 600 g./set) under plasterd Ferrorez 717/CP/50 ml. (Cylinder 50 ml. & plate).



5) Install Ferrorez 717/CP/50 ml. Cylinder 50 ml. & plate) over the opened point.



\*Standard The International Concrete Repair Institute (ICRI), csp 3-5.

6) Stick follow along the cracks and edges with Ferrorez 717/GL/600 g. Fast-Setting glue for injection plate (Size 600 g./set) leave dry 2-3 hours.

#### **Step 2 Mixing/injection**



1) Mixing part A: 1.6 kg. (1600 g.) and part B: 0.4 kg. (400 g.) mixing with low speed driller 1-2 minutes until homogeneous.



2) Fill the resin mixture into cylinder injector within 3-5 minutes after mixing.



3) Twist the axis of the cylinder a little and pushing the resin in the cylinder down to the plate. Then slowly seeped into the cracks wait 20 minutes when see that the injection is not down, remove and wipe with xylene and can be injected again 1-2 times.





4) Remove the plate after injection epoxy is finish 2-3 hours.



5) Grinding and embed Ferrostud 6 mm. space 20-30 cm.



6) Holes with a drill use an oblique guide of 55-60 degrees. to form a cross. Away from the crack 1 inch, depth 15 cm. Mixing water -based epoxy adhesive (Ferrorez 711) on steel and inlaid Deformed bar SD40 DB 12 mm. \*13 cm. space 50 cm.



7) Putty closed Ferrostud 6 mm. with waterbased epoxy adhesive (Ferrorez 711) let dry 6 hours.



8) Grinding the crack line to make a uniform to the concrete surface.



9) Plastering decorative cracks to be smooth with decorative mortar (Ferropatch 551) let dry 1-2 hours. In case on is not pour top layer with Ferrocrete 216.



#### **Limitations/Cautions**

- Do not use to repair that have moving crack.
- Maximum crack should be not be more than 2 mm.
- Should be use a professional installation only.
- Do not spray on crack area with moisture more than 4% while repairing.

#### **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. 0.3-0.8 kg./m<sup>2</sup>.

## **Package**

0.5 kg./set (A = 0.4 kg., B = 0.1 kg.) with tools.

## **Cleaning tools**

Wash tools with xylene before Ferrorez 717/KIT start to dry.

If the Ferrorez 717/KIT is dry, then peel off the mechanical force such as scraping off.

## **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 717 is composed of epoxy please do not put waste into public drainage, It is recommended to let the cement dried with sunlight.

## **Transportation and shipping data**

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

RID/ADR: Not regulated.



#### 1 set contains.

- 1) Ferrorez 717/0.5 (0.5 kg./set) A = 0.4 kg., B = 0.1 kg. 1 set.
- 2) Ferrorez 717/GL/600 g. Fast-Setting glue for injection plate (600 g./set)
   2 set, contains ingredients sub set A = 100 g.,
   B = 100 g. x 6 sub set.
- 3) Ferrorez 717/CP/50 ml. Cylinder 50 ml. & Plate 10 set.
- 4) Ferrorez 711/1 (1 kg./set) A = 0.67 kg., B = 0.33 kg. 1 set.
- 5) Ferrostud 6 mm. (10 pieces/bag).
- 6) Deformed bar SD40 DB 12 mm.
- \*13 cm. (12 pieces/bag).
- 7) Ferropatch 551 (1 kg./bag) 2 bag.
- 8) Drill guide.

Code FG-7IC-8858915272454

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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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