

Technical Datasheet (TDS)

Ferrorez 717

LOW VISCOSITY EPOXY RESIN INJECTION



Ferrorez 717 is a 2 component low viscosity epoxy resin. 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.

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 is manufactured under standard meets to ASTM C 881 Type IV, Grade 1, Class B+C Standard specification for Epoxy-Resin based bonding systems for concrete.

Area of use

- Repair concrete crack width 0.1-2 mm.
- Car park concrete floor.
- Industrial floor.
- Precast concrete wall crack repair.
- Type IV Bonding hardend concrete to hardened concrete (Load bearing)
- Class B use this product during 40-60 °F.

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.

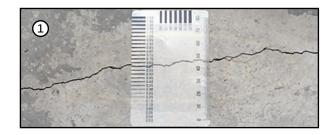
Technical properties

Properties	Values	Standards
Compressive strength at 28 days, MPa. (Approx.)	95 MPa.	ASTM C109/C109M-20a
Tensile strength at 7 days, MPa. (Approx.)	26 MPa.	ASTM D412-16
Adhesion in peel at 7 days, N (Approx.) - To mortar (A width of 25 mm. sealant bead) - To aluminium (A width of 25 mm. sealant bead)	253 N 73 N	ASTM C794-18

Method statement

Ferrorez 717

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.



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 within3-5 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 finished 2-3 hours and cover the plate with Ferrorez 717/GL/600 g. Fast-Setting glue for injection plate (Size 600 g./set) and leave dry for 2-3 hours.



5) Grinding and bury spacing nails 20-30 cm.



6) Blow the dust off.



7) Putty with Ferrorez 717/GL/600 g. Fast-Setting glue for injection plate (Size 600 g./set).



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



 Plastered decorative cracks to be smooth with crack repair mortar Ferropatch 551 Decorative mortar.



10) In case original concrete surface has color can be sprinkled with colored powder iron oxide type such as green, red little while Ferropatch 551 Decorative mortar began to dry. If you want the colour similar to the colour of concrete adjacent. Beware careful of splitting the sesame crack if you sprinkle too much colour powder.





11) Leave to dry, curing spray with clean water or Ferocure 105 Lithium silicate.

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.
- 3. 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./m².

Package

2 kg./set (A=1.6 kg., B=0.4 kg.) 25 kg./set (A=20 kg., B=5 kg.)

Cleaning tools

Wash tools with xylene before material cures.

If the mixture 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.





Size

- 717/2 2 kg./set (A+B)
 Code FG-7IC-8858915271099
 A=1.6 kg., B=0.4 kg.
- 717/25 25 kg./set (A+B)
 Code FG-7IC-8858915272225
 A=20 kg., B=5 kg.
- 717/GL Fast-Setting glue for injection plate 600 g./set A=50 g., B=50 g.
 Code FG-7IC-8858915270016
- 717/CP Cylinder & plate
 50 ml./box
 Code FG-7IC-8858915270009

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.



ISO 9001 & ISO 14001



FERRO CONSTRUCTION PRODUCTS CO.,LTD.

144 M.1 Malaiman Rd. Tungkok, Songphinong, Suphanburi 72110,

Thailand

Tel.: +66-35-473877-8 Fax: +66-35-473879

E-Mail: sale@ferroproduct.co.th

^{*}All the images in the data reproduction or duplication of copyrighted by Ferro Construction Products Products co.,ltd. is prohibited by Act. Copyright protection 2015.