



Ferroseal 313

ACID-RESISTANT EPOXY GROUT FOR CERAMIC TILE



Ferroseal 313 is a 2 component epoxy for tile joints with acid, chlorine, and bathroom cleaning products resistant feature. Its high adhesion is suitable for waterproofing and acid proofing of ceramic tile joints of swimming pool, cafeteria floor tiles, bathroom all the way to laboratory floor tiles.

Advantages

- Chlorine resistant.
- Acid resistant.
- Abrasion resistant.
- Stronger adhesive strength than conventional products.
- Prevents bacteria from embedding into tile joints.
- Permanently protect against leakage along pool tile joints.
- Great use as general tile adhesive.

Area of use

- Bathroom.
- Kitchen.
- Cafeteria.
- Swimming pool.
- Concrete surface.
- Ceramic tile.
- Plaster.

Standards and compliances

Ferroseal 313 is manufactured under standard the conform to ASTM C109/C109M – 02

Physical properties

Properties	Component A	Component B
General Characteristics	Creamy white	Brownish liquid
Specific gravity	1.6 kg./litre	1 kg./litre
Material non-decomposition	100%	100%

Technical properties

Properties	Value	Standard
Compressive strength at 7 days	49.88 MPa	ASTM C109/C109M - 02
Bond strength by slant shear at 7 days	16.50 MPa	ASTM C882 - 99
Flexural strength at 7 days	26.72 MPa	ASTM C348 - 02
Chemical resistance covered with a watch glass at 24 hour		ASTM D1308 - 02
- Acetic acid 2.5%	Unchanged	
- Acetic acid 10%	Unchanged	
- Lactic acid 2.5%	Unchanged	
- Lactic acid 10%	Unchanged	
- Oleic acid 100%	Unchanged	
- Sulfuric acid 50%	Unchanged	
- Hydrochloric acid 5%	Unchanged	
- Citric acid solution 20%	Unchanged	
- Nitric acid 70%	Change	
- Sodium hypochlorite 6.4 g/L	Unchanged	
- Sodium hydroxide solution 2.5%	Unchanged	
- Sodium hydroxide solution 10%	Unchanged	
- Potassium hydroxide solution 30%	Unchanged	
- Ammonia solution 30%	Unchanged	
- Potassium sulphate solution 2.5%	Unchanged	
- Ammonium sulphate solution 10%	Unchanged	
- Sodium chloride solution 10%	Unchanged	
- Potassium chloride solution 10%	Unchanged	
- Ammonium chloride solution 10%	Unchanged	
- Benzene oil	Unchanged	
- Diesel oil	Unchanged	
- Engine oil	Unchanged	

Method statement

Ferroseal 313

Surface Preparation

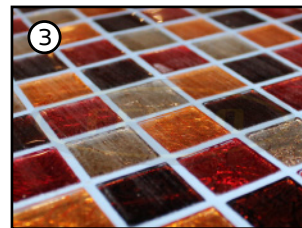
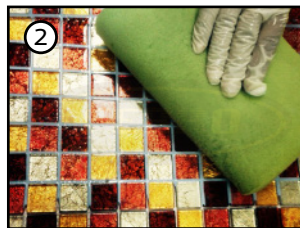
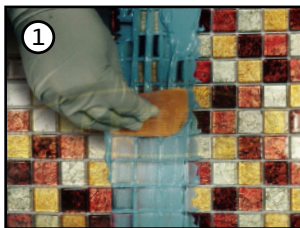
The grout must be dry, free from grease, oil, and other impurities.

Mixing Method

- Mix Mixture A (1 kg) with Mixture B (0.1 kg), at 10:1 ratio by measuring.
- Pour the epoxy onto the grout. Plastered with rubber trowel. *Should not exceed 2 minutes.
- Allow to dry for 5 minutes. Use a sponge trowel moisten with clean water and rotate 45 degrees from top to bottom. Do not backtrack back to the top. Wipe the tile until there are no epoxy stains on it and change the water frequently. *Be careful of dry epoxy stains which is extremely difficult to remove and could lead to damage on the tile surface.

Using

- 1) Use rubber trowel or rubber sheet to apply grout by wiping diagonally along the tiles.
- 2) Allow 5-10 min of drying time and then wipe the tile surface again repeatedly using clean water and sponge until the surface is clean.
- 3) Allow 4-8 hours for grout to harden and to be ready for use.



Limitations/Cautions

- Avoid usage under extreme sunlight conditions (Setting time will be faster).
- Epoxy stains must be removed before drying.
- Dampen sponge in clean water frequently for surface tiles cleanliness.

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

Tiles size	Volume
Tile size 8" x 8" groove 5X5 mm.	0.5 kg./m ²
Tile size 4" x 4" groove 3x3 mm.	0.3 kg./m ²

Package

1.1 kg./set (A+B)

Cleaning tools

Should clean the tools before epoxy dry (4 hours).
Dry case should extract with mechanical.

Storage

- 1 year
- 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 necessary. In case of breathing difficulty is occurred continuously, should taken care by medical treatment.
- 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 immediately.
- Ingestion : Do not induce vomiting. call physician immediately.

Disposal

Ferroseal 313 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

- 1.1 kg./set WHITE
Code FG-3IC-8858915231765
- 1.1 kg./set BROWN No.8011
Code FG-3IC-8858915231796
- 1.1 kg./set BLUE No.0846
Code FG-3IC-8858915231802
- 1.1 kg./set CREAM WHITE No.0823
Code FG-3IC-8858915231802
- 1.1 kg./set Dark Gray
Code FG-3IC-8858915231833
- 1.1 kg./set LIGHT GRAY
Code FG-3IC-8858915231840
- 1.1 kg./set BLACK
Code FG-3IC-8858915231857
- 1.1 kg./set YELLOW
Code FG-3IC-8858915231864
- 1.1 kg./set ORANGE NO.0865
Code FG-3IC-8858915231888

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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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