



Ferrocem 518

REPAIR MORTAR



Ferrocem 518 is a repair mortar with microfiber suitable for repairing an imperfect concrete surface or honeycombs. Ferrocem 518 has a high adhesion, compressive strength and also easy for patching with thixotropic property. Ferrocem 518 can be used in patching both in vertical and horizontal works such as concrete beam and column repairs.

Advantages

- High adhesion & Compressive strength.
- Easy mixing by adding water.
- Thixotropic, can be patched in vertical at thickness 15 mm. in one time.
- Significantly reduce a carbonation effects.

Area of use

- Repair all spalling concrete structure such as beam & column honey comb.
- Concrete stair edge repairs.
- Concrete floor hole repairs.

Standards and compliances

Ferrocem 518 is manufactured under standard which conform to EN 1504-3:2005 Products and systems for the protection and repair of concrete structures - definitions, requirements, quality control and evaluation of conformity.

Physical properties

Properties	Values
Appearance	Gray powder
Fresh mortar density, kg./dm ³	~2.1 kg./dm ³
Air content, % by vol.	~4%
Workability time, min	Approx. >45 minutes
Pot life, min	Approx. >60 minutes

Technical properties

Properties	Values	Standard
Compressive strength, N/mm ² - At 24 hours - At 7 days - At 28 days	Approx. >20 N/mm ² Approx. >35 N/mm ² Approx. >50 N/mm ²	-
Modulus of elasticity, N/mm ² - At 3 days - At 28 days	Approx. 20.000 N/mm ² Approx. 25.000 N/mm ²	-
Tensile adhesive strength, N/mm ² - At 28 days	Approx. >2 N/mm ²	-

Method statement

Ferrocem 518

Step 1 Surface Preparation

- All concrete substrate must be cleaned, sound without dust, grease, oil, old paint etc. that may obstruct to bonding of Ferrocem 518 to the repair substrate.
- It is recommended to chisel all loosely concrete particle until reach a strong concrete surface that suitable for bonding. In case of rust upon reinforced steel, should be sanded with sand paper or blasting to remove all rust and coated with Ferrarez 722 (Rust converter) to inhibit rust in long term.
- Soak with water to the prepared substrate before rendering with repair mortar (Ferrocem 518).

Step 2 Mixing

- Mix Ferrocem 518 1 bag (25 kg.) with 18% or about 4.5 liters clean water with drillers a low speed 400-600 rpm. Homogenize and should not add water add after mixed.
- Use the repair mortar mixture immediately. In case of patching in overhead, it is recommended to patch at thickness 1.5 cm. per one layer.

Limitations/Cautions

- Operation temperature should be between 30 °C - 35 °C
- In case of strong sun and windy condition in cubated with clean water or liquid concrete curing (Ferrocrete 113) when the mortar begins initial setting time.
- Do not mix mortar or, sand, stone, or other chemicals.

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. 2 kg./m²/1 mm.

Package

5 kg./pail
25 kg./bag

Cleaning tools

Clean all tool with clean water before the mortar start to dry.
In case of a dried mortar adhere tightly to the tool, use mechanical methods such as chiselling.

Storage

- 6 months
- 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


Ferrocem 518 is composed of Cement 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.



5 kg



25 kg

- **Size**
 - 5 kg./pail
 - Code FG-5IC-8858915255150
- 25 kg./bag
 - Code FG-5IC-8858915255037

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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.



ISO 9001 & ISO 14001



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