



Ferrolastic 412

2 COMPONENT ELASTOMERIC CEMENTITIOUS WATERPROOFING MORTAR



Ferrolastic 412 is a highly elastic cementitious waterproofing mortar made of high quality acrylic copolymer and selected quartz sand, cement and special additives. Ferrolastic 412 is specially designed for coating external masonry wall or concrete with hairline crack covering properties.

Advantages

- High elongation >195%
- Good waterproof
- High adhesion to concrete substrate
- Crack bridging 1 mm. (non-moving crack)
- Good vapour transmission
- Can be bond and overlay by cementitious tile adhesive

Standards and compliances

Ferrolastic 412 is manufactured under standard which conform to ASTM D 412

Area of use

- Interior and exterior use
- To protect expose concrete structure or element from damp or water
- Basement concrete structure
- Masonry wall
- Bathroom wall and floor prior to tile adhesive works
- Concrete swimming pool prior to tile adhesive works
- General 1 potable concrete water tank

Physical properties

Properties	Value
Appearance	Part A gray powder, Part B milky liquid
Fresh density (A+B)	Approx. 2 kg./litre
Drying time	3-6 hours (30 °C)

Technical properties

Properties	Values	Standards
Tensile strength, 28days	0.79 Mpa.	ASTM D 638
Elongation at break (%)	>195 %	ASTM D 412
Bond strength, 28 days	2.5 Mpa.	ASTM C 882
Compressive Strength, 28 days	12 Mpa.	ASTM C 109
Vapour permeability	0.075 perms	ASTM E 96

Method statement

Ferrolastic 412

Step 1 Surface preparation

- Concrete substrate must be sound, clean without any contaminants such as grease, oil, curing compound, paint etc. compressive strength not less than 2N/mm². at 28 days or surface pull off strength higher than 1 N/mm²
- Porous concrete or honey comb should be repaired by repair mortar (Ferrocem 518)
- Non moving crack should repair by epoxy injection (Ferrorez 717)
- Moving crack or expansion joint should be sealed by swellable waterstop (Ferrostop 415) and patch with epoxy mortar (Ferrorez 714)
- Soak with water to wash and moisten concrete substrate 1-2 hours prior to waterproof coating works.

Step 2 Mixing

- CASE 1 as a waterproofing slurry (Apply by brush) mixing ratio by weight A : B (Approx.) 4 : 1
- CASE 2 as a waterproofing or repair mortar (Apply by spatula) mixing ratio by weight A : B (Approx.) 4.5 : 1
- Shake and slowly pour part B (Liquid) into part A (Powder) while using a low speed paddle mixing machine (400-600 rpm./minute) agitate both part until reach homogeneous without lump (1.5-3 minutes).
- Additional of a little water is permitted (1-2% of the total mixture) in order to adjust a smooth workability. Use the finish mixture within 20 minutes.



Limitations/Cautions

- Application on substrate temperature should be in between 20–35 °C
- Avoid working directly to strong sun and windy condition, If necessary, construct a light screen net to create a shaded area in order to cool down the substrate during waterproof application.
- Do not apply over expansion joint or a non repaired crack.
- Do not use in chemical or waste water tank.
- After cured, avoid cleaning the waterproof surface by high pressure water jet.
- Ferroflex 411 is not designed as decorative finish so it may appear some sign of blooming or white efflorescence if contact to rain or damp.
- All fixings through the waterproof layer must be seal with a waterproof product such as epoxy adhesive (Ferrorez 711, Ferrorez 714 or Ferrorez 713)

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

Vicinity of the waterproofing	Thickness (mm.)	Coverage	Area (m²)
Positive side waterproofing	1	2 kg./m²	12.5 m²
Negative side waterproofing	1.5	3 kg./m²	8.3 m²
Positive side waterproofing	2	4 kg./m²	6.25 m²

Package

35 kg./set Part A (powder=25 kg.), Part B (liquid 10 kg.)

Cleaning tools

Clean tool and container with water before waterproof material start to dry. Use mechanical method such as chiseling in case of dried waterproof residue stick onto tools.



Storage

- 6 months in dried shaded area in unopened bag, room temp. 23 °C + 2%, Relative humidity 50 + 5%RH (conform to ISO 554 standard)

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

Ferrolastic 412 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.



Size

- 412/35 Gray (A+B) 35 kg./set
Code FG-IC-8858915241230
- 412/35 White (A+B) 35 kg./set
Code FG-IC-8858915241047

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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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