

# **Technical Datasheet (TDS)**

# Ferropatch 550

FAST SETTING ROAD REPAIR MORTAR 5-50 MM.



Ferropatch 550 is a fast-setting concrete repair mortar with high bond strength and high compressive strength, soft and flexible, not flowing, can be apply as a decorative finish on both vertical and horizontal surfaces. Suitable for road surface repair work, industrial floors etc.

# **Advantages**

- High bond strength, not easily peeled off.
- High compressive strength.
- Easy to use just add water.
- Fast-Dry, can be over pour within 1 hour with fast-setting, self-leveling mortar for concrete road resurfacing 3-8 mm. (Ferrocrete 216).

#### Standards and compliances

Ferropatch 550 is manufactured under standard meets to ASTM C109, ASTM C807

#### Area of use

- Repair for concrete road ramp surfaces, interior car park.
- Repair for sloped exterior concrete road surfaces.
- Patch individual damaged spots on the concrete surface before pour over with fast-setting, self-leveling mortar for concrete road resurfacing 3-8 mm. (Ferrocrete 216).

#### **Physical properties**

Properties	Value
General characteristics	Gray powder
Density, kg./litre (Approx.)	1.10 kg./litres
Fine mass size, mm. (Approx.)	0-2.36 mm.

#### **Technical properties**

Properties	Values	Standard
Compressive strength, ksc. (Approx.)  - At 6 hours  - At 1 day  - At 7 days  - At 28 days	50 ksc. 100 ksc. 230 ksc. 300 ksc.	ASTM C109
Pot life at 30 oC, minute (Approx.)	No more than 15 minutes	ASTM C807

# **Method statement**

# Ferropatch 550

#### Step 1 Reducing the size of the cracks

The original surface has cracks with a width 0.3-2 mm. Should be repair with crack injection kit for concrete repair (Ferrorez 717/KIT) to reduce the size of the cracks of concrete before pour over with fast-setting, self-leveling mortar for concrete road resurfacing 3-8 mm. (Ferrocrete 216) (Except for cracks caused by ground layer settlement).

# Step 2 Surface preparation by roughening

The concrete surface to be repair must be clean and free of dust, grease, old paint etc. The weak concrete surface must be removing complete until reaching the strong concrete layer with concrete scarifier achieve a rough texture with alternating raised deep grooves approx. 5 mm. and wide approx. 6 mm. According to petty patent No. 22712 (Method for repair concrete road surface with fast-setting, self-leveling mortar) to ensure that fast-setting, self-leveling mortar for concrete road resurfacing 3-8 mm. (Ferrocrete 216) can bond strong, compressive strength value of the original concrete must be no less than 210 ksc. and vacuum the surface clean.

# Step 3 Curing the surface with water until fully saturated before pour

Spray water to wash the preparation surface with a water jet 100 bar to make clean and soak the concrete surface with water until fully saturated, no air bubbles rise to the surface.



#### **Step 4 Mixing/Patching**

Mixing 1 bag of Ferropatch 550 (5 kg.) with clean water (The temperature of tap water should be below 30 °C) 22% or approx. 1.1 litres, mixing with a drill (1600W) and mixing paddle (M 14) until become homogeneous and patch completely within 10-15 minutes after mixing, because Ferropatch 550 setting even faster in hotter weather. Should be to have several technician to reduce joints and ensure continuous mixing. Do not add water after the mixture is comprete.

#### **Step 5 Curing**

Cure immediately after patch by covering with water soaked sacks or spray a curing compound for fast-setting mortar (Ferrocure 114B). for exterior repairs or spray a curing compound for fast-setting mortar (Ferrocure 115) for interior repairs.

#### **Limitations/Cautions**

- Do not use grout in concentrated chlorinated water or concentrated brine.
- Weighing a more accurate to be more precise dosing. Mixing too much water will cause colordistortion and decreased compressive strength.
- Grout that is mixed and then start hard (20 minutes) Do not water again.

# **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. 10 kg./m2/5 mm.



#### **Package**

5 kg./bag. 20 kg./bag.

#### **Cleaning tools**

Should be wash mixing tool with water immediately before the Ferropatch 550 dry. In case dry, should be scraped off with mechanical force.

#### **Storage**

- The shelf life is 6 months in unopened bag.
- Storage in a shaded, dry area with a temperature of approx. 23 °C + 2% relative humidity 50% + 5%RH (According standard 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**

Ferropatch 550 is contains cement. Please do not disposal of the remaining mixture into public drainage pipes. Should be dry and solidified by exposure to sunlight.

# **Transportation and shipping data**

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

RID/ADR: Not regulated.





#### Size

5 kg./bag. Code FG-5IC-8858915215741



#### **Equipment**

- Concrete scarifier
   Code FG-OE-0001-01
- Drill and mixing paddle
   Code FG-OE-0002



# Tools that technicians need to use can be buying general

- 1) Moisture meter sovereign
- 2) Water jet 100 bar
- 3) Knapsack sprayer

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