

## **Technical Datasheet (TDS)**

# Ferrocem 524

#### HIGH PERFORMANCE TLIE ADHESIVE



Ferrocem 524/White is a special tile adhesive made of cement, silica sand chemicals increase quality and flexibility, resistance to temperature changes, high adhesion strength on concrete surface. Suitable for tile installation of non-absorbant large size ceramic tile 24"x24".

#### **Advantages**

- Sticky, soft.
- Low-sag.
- Recommended thickness 2-10 mm.
- High adhesion to non-absorption tile or ceramic tile.
- Can be use in floor and wall interior and exterior.
- Easy to use by adding water.

#### Standards and compliances

Ferrocem 524/White is manufactured meets to ISO 13007

#### Area of use

- Floor and wall interior and exterior.
- Floor and wall large size tile 24"x24".

#### **Physical properties**

Properties	Value
Appearance	Powder
Colour	White
Dry density, kg./litre (Approx.)	1.25+5% kg./litre
Fine aggregate, mm. (Approx.)	0-0.5 mm.
Tile adjustment time 30 oC, minute (Approx.)	<15 minutes

#### **Technical properties**

Properties	Requirement	Ferrocem 524	Standards
Tensile adhesive strength, N/mm² (Approx.)	>0.5 N/mm²	1 N/mm²	ISO 13007
Tensile adhesive strength after water immersion, N/mm² (Approx.)	>0.5 N/mm²	1.1 N/mm²	ISO 13007
Slip, mm. (Approx.)	<0.5 mm.	0.3 mm.	ISO 13007

#### **Method statement**

#### Ferrocem 524

## **Step 1 Surface Preparation**

- Concrete surfaces must be clean, free from dust, oil stain, grease and old paint or other that is an obstacle to adhesion.
- Concrete surface must be strong and have a fairly good level.
- Tile must dry and clean, do not sealed with water.
- Installation a large size ceramic tile size 900-1600 cm² upon exterior wall do not to installation over 8 m. height. If installation small tile size 900 cm² upon exterior wall do not to installation height over 15 m.

## **Step 2 Mixing**

- Mixing Ferrocem 524/White (20 kg./bag) with clean water 23-25% by weight (4.6-5 litres) thoroughly mixing low speed driller (300-400 rpm.) until reach homogeneous without lump. Leave cure 15 minutes, stir again before use. Do not add more water and reapply after that period.
- Remark: Use Ferrocem 524/Driller 1600W use gear 1 speed 5 mixing time 45-60 seconds. Use all mixture within 15 minutes. \*Mixing by weight is more precise than by volume.



#### 2.2 Mixing by volume

- Mixing ratio between Ferrocem 524/White to clean water is approx. 3.5-4: 1 by volume.
  Caution: When use a normal cup do not knock or make any vibration to the cup that may
- increase the density of dry mortar (Ferrocem 524).
  Use clean water 350-400 CC. per Ferrocem 524/White 1000 CC. by volume (In case of using a volume measured cup).







Ferrocem 524/Water





## Step 3 Using

Use notched trowel (U6-U12) apply Ferrocem 524/White tile adhesive apply into groove in the same direction by spreading in small area 1-2 m² and control the thickness of tile adhesive at 5-10 mm. Then apply Ferrocem 524/White tile adhesive fill up back tile so as not to create a cavity behind the tile may bend or spalling off. Press tile upon Ferrocem 524/White tile adhesive, adjustment tile into position within 15 minutes. Use rubber hammer slightly knock down to tile in order to make sure that it will complete bond without air void under tile. Left the tile adhesive bond perfectly to tile at least 24 hours. Before starting a grouting works.



#### **Limitations/Cautions**

- Thickness of tile adhesive Ferrocem 524/White minimum in wall work must be at least 2 mm. Not less than 3 mm. for floor tile application.
- Tile adhesive Ferrocem 524/White is not suitable for use upon exterior wall of high rise building such as condominium.
- Tile adhesive Ferrocem 524/White is not suitable for use in high vibration area such as carpark floor, industrial floor or supermarket floor.
- Large size tile installation, must be careful not to create gaps under the plate, so should be spread the tile adhesive. Ferrocem 524/White upon back of tile in order to be better bonding.
- Do not apply tile adhesive Ferrocem 524/White over moving crack or expension joint.
- Vertical load max 40 kg./m².

#### **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.
- 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. 6-12 m2

Notched trowel tooth shape	Туре	Notched trowel groove size	Tile size	Approx coverage
<b>\\\\\</b>	V4	4×4 mm.	Mosaic 1×1, 2×2	12.5 m²
	U6	6×6 mm.	Medium tiles 8×8,10×10,12×12	8.5 m²
	U10	10×10 mm.	Large tiles 12×24,18×18,24×24	7 m²
	U12	12×12 mm.	Large tiles 12×24,18×18,24×24	6 m²



#### **Package**

20 kg./bag.

#### **Cleaning tools**

Clean all tools before tile adhesive mortar start to dry. In case of a dried mortar adhere to tools, use a mechanical method such as chiseling.

#### **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 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**

Ferrocem 524/White 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

- 524/20 White (20 kg./bag)
  Code FG-5IC-8858915255792
  524/20 White (25 kg./bag)
- Code FG-IC-8858915255112



#### **Equipment**

- 1) Ferrocem 524/1 Powder
- 2) Ferrocem 524/Water
- 3) Ferrocem 524/Driller
- 4) Ferrocem 524/Paddle
- 5) Ferrocem 524/Trowel U10



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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.



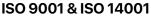
FERRO CONSTRUCTION PRODUCTS CO.,LTD.

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



FERROCE