



## DESCRIPTION

Ezi e-FIX is an eco-friendly, low CO2 emission, water resistant, cementitious adhesive (C). In Compliance with Singapore Environmental Council (SEC) Green Label Criteria (GLS 022) with minimum 20% Re-Cycled Content. Conforming to the requirement of MS ISO 13007-1, classified as type C1.

## MAIN CHARACTERISTICS



## USAGE

### Suitable to use for :

- variety of ceramic tiles, natural stones and mosaic tiles namely for porous tiles, porcelain tiles, vitrified homogeneous tiles, marbles, granites, glass mosaics, ceramic mosaics, etc.
- thin-thick bed 3 - 6 mm, and up to 12 mm in small isolated areas.
- variety of substrates (refer to SUITABLE SUBSTRATES).
- internal and external, wall and floor, dry and wet areas including water immersion areas.

**Note :** - Highly recommended to mix Ezi e-FIX with EziMIX STAR AD-1 to achieve optimum performance for installation of low water absorption tiles ( $\leq 0.5\%$ ) in very demanding situations (e.g. swimming pool, bathroom, etc.)



## COMPOSITION AND PERFORMANCE

Ezi e-FIX consists of grey cement, graded washed silica sand and special additives.

Ezi e-FIX offers the following benefits when mixed with clean water:

- Low Detection Limit of Trace Metal and VOC
- High Bonding Strength
- User Friendly
- Good Workability
- Non-Slump Properties
- Prevent Mixing Error On Site
- Water Resistant Properties
- Reduce Drying Shrinkage
- Minimise Efflorescence

## PRODUCT INFORMATION

Name	: Ezi e-FIX
Packaging	: 25 KG
Classification	: ISO 13007-1 Class C1
Shelf Life	: 12 Months in Cool & Dry Condition
Appearance	: Grey Fine Powder
Dry Solid Content	: 100%
pH Value	: Alkaline
Toxicity Hazard	: No
Inflammability	: No

## APPLICATION DATA (Tested at approx. 25 °C)

Mixing Ratio	: 3 pbw. e-FIX to 1 pbw. water (7-8 litres water/EziMIX STAR AD-1 to 25 kg Ezi e-FIX)
Consistency of Mix	: Non-Slump Creamy Paste Form
Coverage	: Approx. 8 - 9 m <sup>2</sup> per bag (at 3 mm bed thickness)
Bed Thickness	: Recommended 3 - 6 mm
Slip Resistant	: Excellent
Workability	: Good (Smooth & Non-Slump)
Open Time	: Approx. 15 - 20 minutes
Adjustability Time	: Approx. 15 - 20 minutes
Pot Life	: Approx. 3 - 4 hours
Light Foot Traffic	: Approx. 24 hours
Setting Time	: Approx. 24 - 48 hours
Application Temperature	: From +5 °C to Normal Ambient Temperature

## TECHNICAL DATA (Tested at approx. 25 °C)

	Result	Requirement
Tensile Adhesion Strength after 28 days		
- Air Dry	: 1.3 ± 0.10 N/mm <sup>2</sup>	≥ 0.5 N/mm <sup>2</sup>
- Water Immersion	: 0.8 ± 0.10 N/mm <sup>2</sup>	≥ 0.5 N/mm <sup>2</sup>
- Heat Aging	: 0.7 ± 0.10 N/mm <sup>2</sup>	≥ 0.5 N/mm <sup>2</sup>
Resistance to Heat	: + 100 °C	
Resistance to Frost	: - 5 °C	
Resistance to Water	: Good	
Resistance to Alkalis	: Good	
Resistance to Acids	: Poor	
Resistance to Oil and Solvent	: Fair	

Tested in accordance to the requirement of MS ISO 13007-1 Type C1

## SUITABLE SUBSTRATES

- (i) **Concrete** - It must be aged for 6 weeks. Direct fixing onto concrete may be adopted provided the surface is flat, cured and free of contamination. Surface primer may be required for direct fixing.
- (ii) **Brick Wall or Lightweight Hollow Blocks** - It must be aged for 4 weeks and levelled with cement-sand render prior to fixing tiles. Direct fixing is not recommended.
- (iii) **Aerated Lightweight Concrete Blocks (ALC)** - It must be aged for 4 weeks and levelled with cement-sand mortar (e.g. Ezi ALC PLASTER) prior to fixing tiles. Direct fixing on even surface can be done by using Ezi e-FIX + EziMIX STAR AD-1. Prime surface of ALC Blocks with Ezi ALC Primer before direct fixing.
- (iv) **Cement-Sand Render or Screed** - Allow new cement-sand render or screed to cure for 2-3 weeks before tiling. The rendering or screeding mortar mix should ideally be 1 part of cement to 3-4 parts of sand.
- (v) **Existing Tiles or Natural Stones** - Existing surface must be dry, sound and free of contamination. Hollow sections should be removed and made well before direct fixing with Ezi e-FIX + EziMIX STAR AD-1.
- (vi) **Existing Vinyl Tiles** - Existing surface must be dry, sound and free of contamination. Prime surface with EziMIX SBR BOND, before direct fixing with Ezi e-FIX + EziMIX STAR AD-1.
- (vii) **Building Boards** - For example plywood, chipboard, cement-fibre board etc. must be sufficiently braced to provide a rigid substrate. Prime surface with EziMIX SBR BOND, before direct fixing with Ezi e-FIX + EziMIX STAR AD-1.
- (viii) **Timber Floor** - It must be rigid, strong and strengthened by overlaying it with a 15 mm thick marine plywood, screw fixed at 300mm centres to the joists. Tiling method is similar to the tile installation of "Building Boards".

*Note:* - Not suitable for use on substrates subjected to high shrinkage, movement or vibration or to install moisture sensitive materials.

- Not recommended to tile over metal, paint and skim coat plaster.

- Installation in very demanding situations where greater bonding strength and flexibility are required, recommended to mix Ezi e-FIX with latex admixture to replace gauging water.

## INSTALLATION PROCESS



Make sure the surface is clean



Prepare the mix



Spread paste on the substrate



Spread paste on the back of tile

### (1) Preparing the Substrate

- Substrate must be dry, flat and free of contaminants, e.g. dust, grease, laitance, oil, paint, etc.

*Note:* dampen the surface with water only when it has become heated from exposure to sunlight.

- For more substrate preparation, kindly refer to "SUITABLE SUBSTRATES".

### (2) Preparing the Mix

- Mix 3 parts of Ezi e-FIX with 1 part of clean water or latex admixture by weight, until a smooth, non-slump paste is achieved. Mechanical mixing is recommended.

### (3) Spreading the Mix

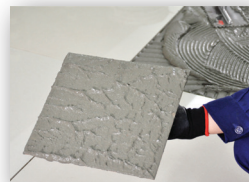
- Spread the paste to the substrate at bed thickness of 3 - 6 mm (may vary depending on tile size and weight) with appropriate notched trowel. It is also applicable up to 12 mm in small isolated areas.

- For tiles or stones size greater than 300 x 300 mm or subject to heavy loads, spread the adhesive on the back of the tiles or stones to ensure a complete coverage.

- Spread no more than 1 m<sup>2</sup> at a time to prevent Skin-Over. In normal ambient temperature and humidity conditions, the open time of Ezi e-FIX is approximately 15 minutes.



Place tile on the adhesive bed



Good coverage of the adhesive "Solid Bed Fixing"



Adhesive bed is no longer sticky - "Skin-Over"



Applying the Grout

*Note:* Unfavourable weather conditions (e.g. extremely hot, strong wind, high temperature, etc.) or highly absorbent substrate can drastically reduce the open time.

### (4) Installing the tiles

- Ceramic tiles should be fixed dry, they should not be soaked. Recommended to use damp cloth to clean the dusty tile back.

- Tiles should be installed under a firm pressure, and followed by slight twisting action to ensure good coverage and contact of the adhesive (Solid Bed Fixing).

- Tiles must be installed on the fresh adhesive bed within its recommended open time before Skin-Over of the adhesive occurs, resulting in loss of its tackiness. If this happens, discard the affected adhesive bed and apply a fresh adhesive bed.

- Allocate tile joints of approximately 3 mm wide between tiles.

- Remove surplus adhesive from tile surface and joints before it hardens.

- Tiling installed with Ezi e-FIX must be protected from water & rain for at least 24 hours.

### (5) Applying the Grout

- Grouting of tile joints with Ezi cementitious or epoxy grouts should commence at least 24 hours after adhesive had set. Setting may be delayed on dense or impervious surfaces.

### MATERIAL SAFETY INFORMATION

A non-toxic, cement-based product which is considered non-hazardous in normal usage. Avoid inhalation, ingestion, skin and eyes contact. For more details, please refer to Ezi Material Safety Data Sheet.

When working with this product, recommended to follow the safety precaution below.



### COMPANY INFORMATION

Ezi MOTARTECH SDN. BHD. (874800-D)

#### KUALA LUMPUR :

📍: 2, Jalan Tembaga SD5/2H, Bandar Sri Damansara, 52200 Kuala Lumpur, Malaysia.  
☎: +603-62773709  
☎: +603-62723760

#### WAREHOUSE :

📍: 1888, Jalan Lahar Bubu, Kepala Batas, 13200 Penang, Malaysia.

#### PENANG :

📍: 80, Jalan Masjid Negeri, 11600 Penang, Malaysia.  
☎: +604-6588817  
☎: +604-6588818

#### Ezi TECHNICAL ADVISORY CENTRE

☎: +6012-431 8221  
☎: +6012-478 2142  
✉: technical@ezi-fix.com  
🌐: www.ezi-fix.com