



Ezi SOLUTIONS TO TILE FIXING SYSTEM

# 2.1 EziMix STAR AD-1

HIGH PERFORMANCE LATEX ADMIXTURE FOR USE WITH  
Ezi's RANGE OF CEMENT-BASED TILE ADHESIVE



## DESCRIPTION

**EziMix STAR AD-1** is a premium grade, high performance, Latex Admixture; specially formulated for use with Ezi's range of Cement-Based Adhesive. It is a ready to use product which contains high polymer content.

**EziMix STAR AD-1** is suitable for use in a variety of building application. Recommended for use at wet or dry areas; internal or external areas including areas under water immersion (eg. Swimming Pools)

**EziMix STAR AD-1** is formulated for use as an Admixture with Ezi's range of Cement-based Tile Adhesive to enhance its adhesion strength, flexural strength, cohesive strength, abrasion resistant, frost resistance, improved durability, reduces water permeability, improves workability; and improve its ability to resist stresses from the background such as movement, vibration loading or hydrostatic pressure of pool water.

The improvement of the physical and chemical properties; allow normal cement-based Tile Adhesive to be used to install Ceramic Tiles, Porcelain Tiles or Natural Stone Slabs onto a variety of non-conventional substrates such as existing tiles, terrazzo, natural stone slabs, waterproofing surfaces, smooth or dense concrete surfaces, and building boards.

With its improved water resistant & reduced water permeability properties; it most ideal for use in wet duty areas or areas under permanent water immersion (eg. swimming pool, water feature etc.).

## USAGE

- External Wall & floor Tiling
- Swimming Pool & Water Feature Tiling
- Installation of large format Porcelain Tiles or Natural Stone Slabs to wall or floor
- Installation of dense Porcelain Tiles or Natural Stone Slabs (with water absorption rate  $\leq 0.5\%$ )
- Installation onto dense or smooth concrete surface
- Tiling onto existing Tiles, Terrazzo or Natural Stone Slabs
- Tiling onto existing Vinyl Tile (priming with EziMix SBR Bond required)
- Tiling onto Building Boards eg. Cement Fiber Board, Plywood, Chipboard etc. (priming with EziMix SBR Bond required)
- Tiling onto waterproofing surface.
- Tiling onto background substrates with limited degree of movement.
- Tiling to areas subjected to heavy pedestrian or vehicular traffic.
- Tiling to wet-duty areas

## PRODUCT INFORMATION

Name	: EziMix STAR AD-1
Packing	: 4 & 25 ltrs
Shelf Life	: 12 months in normal dry ambient condition
Appearance	: Milky white polymer liquid
pH Value	: Alkaline
Toxicity Hazard	: No
Inflammability	: No

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

Mixing Ratio	: Approx. 1 pbw Latex Admixture to 3 pbw Powder (Approx. 6 - 7 ltrs Water : 20kg Powder) Approx. 1 pbw Latex Admixture to 3 pbw Powder (Approx. 6 - 8 ltrs Water : 25kg Powder)
Consistency of Mix	: Non-Slump creamy paste form
Coverage	: Approx. 25m <sup>2</sup> per 25ltr Latex Admixture when mix with 20kg Adhesive at 3mm trowel bed thickness Approx. 28m <sup>2</sup> per 25ltr Latex Admixture when mix with 25kg Adhesive at 3mm trowel bed thickness
Bed Thickness	: Recommended at 3 - 12mm (May vary depending on size of tiles)
Open Time	: Approx. 20 minutes
Adjustability Time	: Approx. 20 minutes
Pot Life	: Approx. 2 - 3 hours
Light Foot Traffic	: 24 hours
Setting Time	: 24 - 48 hours
Application Temperature	: +5°C to normal ambient temperature

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

	Results	Requirements
Tensile Adhesion Strength		
After 28 days Air Dry	: 3.37 ± 0.10 N/mm <sup>2</sup>	≥ 1.00 N/mm <sup>2</sup>
After Water Immersion	: 2.95 ± 0.10 N/mm <sup>2</sup>	≥ 1.00 N/mm <sup>2</sup>
After Heat Aging	: 2.25 ± 0.10 N/mm <sup>2</sup>	≥ 1.00 N/mm <sup>2</sup>
Resistant to heat	: 100°C	
Resistant to frost	: -5°C	
Resistant to water	: Good	
Resistant to alkali	: Good	
Resistant to acid	: Poor	
Resistant to oil & solvents	: Fair	

Tested in accordance to the requirements of MS ISO13007-1 Type C2

## INSTALLATION PROCESS (TILE INSTALLATION)

### (1) Substrate Preparation

- Substrates must be well cured, dry, sound, flat & true and free of contaminants eg. dust, grease, laitance, mould release oil etc.
- Substrate Curing Period before commencement of tile installation; Concrete Wall (4 - 6 weeks); AAC Block Walls (4 weeks); Cement-Sand Render ( 1 - 2 weeks); and Cement-Sand Screed (2 - 3 weeks)

Note:

- For substrate with high degree of surface water suction or substrates that is exposed to heat for prolonged periods; lightly dampen its surface with water; prior to commencement of tile installation.

### (2) Mixing

- Mix EziMix STAR AD-1 with Cement-Based Tile Adhesive as per the recommended mixing dosage until a smooth, creamy non-slump paste is achieved. Mechanical mixing is recommended.

### (3) Applying Adhesive Mortar

- Apply the adhesive mortar onto the substrate at trowel bed thickness of between 3-12mm (may vary depending on the size of the tiles to be installed); using an appropriate notched trowel.
- For large format tiles it is advisable to skim a thin coat of adhesive (approx. 3mm thick) to the tile back; prior to placing it onto the trowelled adhesive bed and tamping it into position followed by slight sliding action.
- Spread to no more than 1m<sup>2</sup> at a time; ensuring tiles are installed within the adhesive bed open time; to prevent "skin over".

Note: The open time of Tile Adhesive can be drastically reduced under unfavourable conditions such as extremely hot weather, strong wind, high temperature and highly absorbent substrates.

### (4) Installing Tiles

- Ceramic Tiles must be fixed dry. Do not soak Ceramic Tiles in water.
- Ensure that the tile back is free of contaminants prior to installation.
- It is good practice to firmly press or tamp tiles onto trowelled adhesive bed followed by slight sliding action to ensure solid bed fixing and good transfer of adhesive to the tile back; and minimizes hollow sections.
- Tiles must be promptly fixed onto the adhesive bed within its recommended open time; to prevent installing tiles onto adhesive bed that had "Skin Overed"
- Where the adhesive bed had Skin-Overed; apply fresh adhesive and re-trowel to break the skin.
- Allocate tile joints of approx. 3mm wide between tiles; when installing tiles.
- Any residual adhesive in the tile joints or tile surface must be removed before it hardens.
- Tiles installed with Ezi Adhesive Solution must be protected from traffic, water or rain for at least 24 - 48 hours.

### (5) Grouting

- Grouting of tile joints should only commence after 24 hours (preferably longer).
- Fill and compact tile joints with Ezi Grout Fine; incorporating Clean Water or Latex Admixture depending on the service condition.
- Allow grout to set for at least 24 - 48 hours (preferably longer); before the tile installation is subjected to normal service condition.

Note:

- Not suitable for use on substrates with high degree of shrinkage or excessive movement or to install moisture sensitive materials
- Not recommended to tile over metal, painted wall or skim coat plastered surfaces.
- Do not adulterate the Adhesive with additional cement or sand; or dilute EziMix STAR AD-1 with water.
- Refer to EZI Cement-Based Tile Adhesive Technical Data Sheet for "Suitable Substrates".

### 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.



WEAR DUST MASK



WEAR SAFETY GOGGLES



WEAR HAND GLOVES



WEAR SAFETY SHOES



KEEP AWAY FROM CHILDREN

### COMPANY INFORMATION

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