

# SA329 STONE FLOOR ADHESIVE (FAST-SETTING)

# **EN12004 C2FT COMPLIANT TILE ADHESIVE**

## PRODUCT DESCRIPTION

**OPTIMIX** SA329 STONE FLOOR ADHESIVE (FAST-SETTING) is a Rapid Setting high quality polymer modified cementitious adhesive available in grey or white colours for high strength fixing of interior and exterior natural stone and ceramic tiles.

OPTIMIX SA329 is an easy to mix and apply adhesive with a good pot life and open time but which sets quickly and gains working strength within 2 hours. This allow for simple positioning and adjustment of all kinds of floor and wall tile installations with the potential for early grouting and quick opening to foot traffic. It has a high polymer content designed to achieve high bond performance and provide additional flexibility. This makes it ideal for larger and heavier tiles and installations subject to some loading or impacts.

# **TYPICAL USAGE**

- For rapid return to service interior and exterior tiling works
- Ideal for installing all tiles including large and heavy tiles
- Will give excellent results on natural stone, most Terrazzo, Reconstituted, Homogeneous Wall & Floor Tiles and of course papered tiles
- Designed for thickness of 5-15mm in a layer for typical application
- Ideal for MiC factory and on site works



## **FEATURES AND BENEFITS**

- Rapid Setting and Thixotropic
- High Strength and Flexible
- Ideal for 'thin bed' or 'back buttering' method of installation
- Consistent Quality & Performance
- Simple and Easy to Use
- Available in Grey or White





# **TECHNICAL DATA**

# **Mixing**

Water Demand	5.5 – 6.0 litres per 25 kg powder	
Mixing Method	Forced Action Mixer e.g. Low Speed (~500rpm) Drill & Paddle	
Mixing Time	Mix for 5 minutes or until homogeneous and lump free, Leave to stand for 5 minutes, Briefly remix before use	

# Pot Life 1) 2)

@ 22°C	~20 minutes
@ 30°C	~15 minutes
@ 38°C	~10 minutes

# Performance 1)

Product Characteristics	Specification	OPTIMIX SA329	Test Method
Initial Tensile Adhesion Strength @ 6h (MPa)	≥ 0.5 <sup>3)</sup>	~0.5	EN1348:2007 CI 8.2
Initial Tensile Adhesion Strength @ 24h (MPa)	≥ 0.7 <sup>2)</sup>	~0.9	EN1348:2007 CI 8.2
Initial Tensile Adhesion Strength @ 28d (MPa)	≥ 1.0 <sup>3)</sup>	~2.5	EN1348:2007 CI 8.2
Tensile Adhesion Strength After Water Immersion (MPa)	≥ 1.0 <sup>3)</sup>	~1.2	EN1348:2007 CI 8.3
Tensile Adhesion Strength After Heat Aging (MPa)	≥ 1.0 <sup>3)</sup>	~1.5	EN1348:2007 CI 8.4
Tensile Adhesion Strength After Freeze Thaw Cycles (MPa)	≥ 1.0 <sup>3)</sup>	~1.4	EN1348:2007 CI 8.5
Open Time of Tile Adhesive After 10 minutes (MPa)	≥ 0.5 <sup>3)</sup>	~1.8	EN1346:2007
Slip (mm)	≤ 0.5 <sup>3)</sup>	~0.4	EN1308:2007

## **Environmental Data**

Volatile Organic Compounds (VOC) 4)	≤ 10 g/L
Potential BEAM points	Product is manufactured within 800km of Hong Kong project sites
Packaging Composition	Paper bags incorporating 40% recycled paper

# Packaging & Yield 5)

Wet Density (kg/m <sup>3</sup> )	1700	
Coverage (kg/mm/m²)	1.27	
Yield (per 25kg bag)	19.7 L (or ~4.0m <sup>2</sup> @ 5mm thick)	
Packing Size	25 kg	
Shelf Life	6 months	

# Notes

- Typical results achieved in laboratory conditions and for reference only. Actual results on site will vary with ambient, substrate and tile conditions.
- substrate and tile conditions.

  2) In-house specification and/or in house test method
- 3) EN12004 C2FT specification
- VOC content is tested by USEPA Method 24.
   VOC limits for ceramic tile adhesives <a href="https://www.epd.gov.hk/">https://www.epd.gov.hk/</a>
- 5) Approximate figures make no account for wastage of any kind.



# **INSTALLATION GUIDE**

(Refer to Method Statement for more details)

#### SURFACE PREPARATION

Substrate must be clean, free from loose particles, oil, grease and other contaminants which may affect the bond. New concrete should be allowed to cure for a minimum of 4 weeks; Renders or screeds should be allowed to cure for a minimum of 7 days before laying of tiles.

Excessive shrinkage movement of the substrate must have taken place before tiling works can begin.

#### **MIXING**

Mix one bag of **OPTIMIX SA329** dry powder with 5.5-6.0L of potable water to achieve the desired consistency. Mechanical mixing with a slow speed drill and paddle is recommended.

Apply the powder to the water and mix for about 5 minutes or until a lump free homogeneous mix is achieved.

Allow the mix to stand for 5 minutes and mix briefly again immediately before use.

## **APPLICATION**

## Thin Bed Method

Use a flat trowel to spread the adhesive in an even layer onto the substrate then comb the surface of the adhesive using a 6mm or 10mm notched trowel.

While the adhesive is still wet press the tiles firmly into place with a slight twisting action to ensure good contact.

# Thick Bed (Back-Buttering) Method

For large or contoured tiles use a flat trowel to spread the adhesive in an even layer about 2mm thick onto the back of the tile.

Apply another layer onto the substrate and comb the surface with a 6mm or 10mm notched trowel.

For uneven tile surfaces such as rough-hewn natural stones the adhesive may need to be applied in greater thickness to allow for the shape and contour of the tile and substrate. In this case applying additional adhesive to the back of the tile and combing with a 10mm notched trowel will help to manage consumption of adhesive. Offer up the tile to the substrate and tap into position carefully. A rubber mallet may be used to persuade the tile into position but take care not to damage the tile or move any adjacent tiles. Consider using a piece of soft wood to spread the impact of the hammer.

#### **TILE ADJUSTMENT**

Adjustment of the installed tile can be carried out while the adhesive is still workable. Note that the 'open time' of the adhesive after spreading on the tile and the substrate will be much shorter than the 'pot life'. Take care to ensure that the adhesive has not dried out or begun to set prior to installing or adjusting the tile.

## **FINISHING AND CURING**

Take care to ensure the tile is properly supported while the adhesive sets and hardens. Avoid touching, trafficking or otherwise loading the tiles until the installation has developed sufficient strength. Depending on the tile it is usually better to clean off any excess adhesive from the tile while the adhesive is still wet. This can be done with a little water and a sponge but take care not to add water to the adhesive supporting and bonding the tile. Protect the installation from extremes of temperature for at least the first 7 days.

## **GROUTING**

Grouting of joints should be commenced not earlier than 2 hours after the tiles have been installed. Optimix recommends **TG410E** grout.

#### **LIMITATIONS**

**OPTIMIX SA329** is not recommended for use on Gypsum substrates without pre-treatment.

**OPTIMIX SA329** is water resistant but is not a waterproof barrier. When using porous natural stones such as marble Optimix strongly recommend installing a waterproof membrane to prevent long term moisture staining on the tile surface.

#### **HEALTH AND SAFETY**

**OPTIMIX SA329** is alkaline in nature and can cause irritations to persons with sensitive skin. Avoid inhalation of dust and contact with skin and eyes. Wear suitable protective gloves and masks while handling the product. If contact with eyes, rinse immediately with plenty of clean water and seek medical advice. This product is non-toxic and is not flammable.

#### **STORAGE**

Store the products in a cool and dry place with the original unopened bags on pallets with plastic wrapping. Protect from direct sunlight, rainfall and exposure to high humidity conditions. Avoid excessive stacking of pallets. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging and reduce shelf life.

#### **ALTERNATIVE PRODUCTS**

- **TA313** Tile Adhesive (Semi-Flexible)
- **TA314** Tile Adhesive (2-in-1 Fix and Grout)
- **TA328** Tile Adhesive (Flexible)
- **TA338** Tile Adhesive (High Performance)



Important Note: The information contained herein is, the best of our knowledge, true and reliable and is supported by the present state of our knowledge. No warranty is given or implied in connection with any recommendations or suggestions made by us or our representatives as the conditions of use and any labour involved are beyond our control.





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