TA328S

TILE ADHESIVE (FLEXIBLE) with Enhanced Efflorescence Resistance

EN12004 C2TE S1 COMPLIANT TILE ADHESIVE





PRODUCT DESCRIPTION

OPTIMIX TA328S TILE ADHESIVE (FLEXIBLE) WITH ENHANCED EFFLORESCENCE RESISTANCE is a high quality polymer modified cementitious adhesive with special additives which inhibits the movement of free lime and thus reduces the risk of efflorescence. Available in grey or white colours it is designed for high strength fixing of interior and exterior ceramic tiles.

OPTIMIX TA328S is an easy to mix and apply normal setting adhesive with a good pot life and open time. This allow for simple positioning and adjustment of all kinds of floor and wall tile installations. 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 impact.

TYPICAL USAGE

- For general purpose interior and exterior wall and floor tiling works including EVA
- Ideal for installing all sizes of tiles including large and heavy tiles
- Will give excellent results on natural stone, most Terrazzo, Reconstituted, Homogeneous and of course papered tiles
- Suitable for MiC factory or on site works

FEATURES AND BENEFITS

- Enhanced Efflorescence Resistance
- High Adhesive Strength, Shear Bond Strength and Flexibility
- Ideal for ‘thin bed’ or ‘back buttering’ method of installation
- Consistent Quality & Performance
- Simple and Easy to Use
- Thixotropic and Extended Open Time
- Available in Grey or White
- Low VOC – complies with HK EPD regulation
- Local Production – can contribute to BEAM
- Low Density ~1,600 kg/m^3
- Waterproof and Water Resistant Characteristics

TECHNICAL DATA

Mixing

Water Demand	5.75 – 6.5 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)]

@ 18°C	~120 minutes
@ 28°C	~90 minutes
@ 38°C	~60 minutes

Performance [1)]

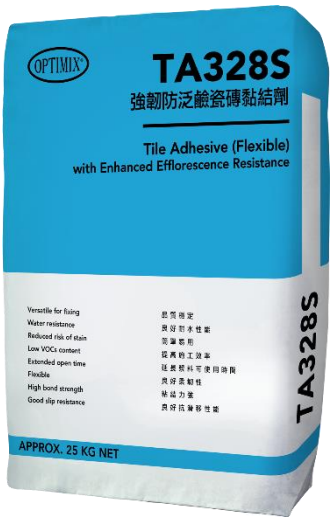
Product Characteristics	Specification	*TA328S*	Test Method
Initial Tensile Adhesion Strength (MPa)	≥ 1.0 [3)]	~ 1.8	EN1348:2007 Cl 8.2
Tensile Adhesion Strength After Water Immersion (MPa)	≥ 1.0 [3)]	~ 1.2	EN1348:2007 Cl 8.3
Tensile Adhesion Strength After Heat Aging (MPa)	≥ 1.0 [3)]	~ 1.3	EN1348:2007 Cl 8.4
Tensile Adhesion Strength After Freeze Thaw Cycles (MPa)	≥ 1.0 [3)]	~ 1.3	EN1348:2007 Cl 8.5
Open Time of Tile Adhesive After 30 minutes (MPa)	≥ 0.5 [3)]	~ 0.7	EN1346:2007
Slip (mm)	≤ 0.5 [3)]	~ 0.2	EN1308:2007
Deformation (mm)	≥ 2.5, < 5.0 [3)]	~ 3.8	EN12002:2002
Initial Shear Adhesion	≥ 2.0 [4)]	> 4.0	EN12004:2017
Efflorescence Resistance	None Visible	None Visible	JC/T1024
Potable Water	HK Waterworks Regulation Schedule 2	Comply	BS6920:2014

Environmental Data

Volatile Organic Compounds (VOC) [5)]	≤ 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 [6)]

Wet Density (kg/m^3)	1,600
Coverage (kg/mm/m^2)	1.3
Yield (per 25kg bag)	19.2 L (or ~4.0 m^2 @ 5mm thick)
Packing Size	25 kg
Shelf Life	12 months



Notes

1) Typical results achieved in laboratory conditions and for reference only. Actual results on site will vary with ambient, substrate and tile conditions.
2) In-house specification and/or in house test method
3) EN12004 C2TE S1 specification
4) EN12004 R1 specification for reference.
5) VOC content is tested by USEPA Method 24. VOC limits for ceramic tile adhesives https://www.epd.gov.hk/
6) Approximate figures make no account for wastage of any kind.



INSTALLATION GUIDE

(Refer to Method Statement for more details before commencing works)

SURFACE PREPARATION

Substrate must be clean, free from loose particles, oil, grease and other contaminants which may affect the bond.

Site concrete should be allowed to cure for a minimum of 4 weeks; Site renders or screeds should be allowed to cure for a minimum of 7 days before laying of tiles.

Substrates in MiC and other factory controlled environments may be able to receive ***OPTIMIX TA328S*** after 24 hours but trials should be carried out to confirm this.

Excessive shrinkage, drying, settlement and other movement of the substrate must have taken place before tiling works can begin.

MIXING

Mix one bag of ***OPTIMIX TA328S*** 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 adhesive using a 6mm 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 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 24 hours after the tiles have been installed. Optimix recommends ***TG410E TILE GROUT (HIGH PERFORMANCE)***.

LIMITATIONS

(Contact Optimix for more details)

OPTIMIX TA328S should not be used on Gypsum substrates without pre-treating the substrate.

OPTIMIX TA328S is suitable for large and heavy tiles in most conditions, however where significant substrate or tile movement is expected or for industrial situations please contact Optimix for specific recommendations.

OPTIMIX TA328S has a high polymer content which provides flexibility, enhanced bonding, water resistance and waterproofing characteristics. However, if waterproofing is the primary consideration such as for tanking, damp-proofing or when installing tiles liable to staining then Optimix recommend installing a dedicated waterproofing product as part of the system.

HEALTH AND SAFETY

OPTIMIX TA328S 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

Other similar products in the Optimix range include:

- ***TA313*** Tile Adhesive (Semi-Flexible)
- ***TA314*** Tile Adhesive (2-in-1 Fix and Grout)
- ***TA328*** Tile Adhesive (Flexible)
- ***SA329*** Stone Floor Adhesive (Fast-Setting)
- ***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.