Epoxy Tile Grout

ST-ETG

Two-component epoxy tile grout and adhesive with excellent resistance to chemicals, staining and microbials suitable for using at areas subjected to severe chemical exposure such as laboratories, slaughterhouses, food/beverage factories, hospitals, clinics, toilets, etc.

PRODUCT DESCRIPTION

ST-ETG is a two-component epoxy tile grout and adhesive consisting of water-based epoxy resin, fine silica sand and properties enhancement additives. It complies with both Class RG reactive grout of BS EN 13888 and Class R2 improved reaction resin adhesive of BS EN 12004. ST-ETG is designed for grouting different types of tile with joint width of 1 – 12 mm and also for fixing tiles at wall and floor in exterior and interior conditions, particularly under frequent chemcial attacks by cleaning agents or chemicals. Thanks to the capability of epoxy resin, ST-ETG has excellent resistance to chemicals, staining, efflorescence and growth of microbials. ST-ETG can be supplied in colours of white, grey or other designated colours.

SUBSTRATE PREPARATION

The joints/substrate must be sound, even, well-aligned, clean and free of dust, loose particles, grease and any other unwanted contaminants. Tile grouting can be commenced 24 hours after tiling. ST-ETG can be applied on damp (but must not be wet) surface.

CONSUMPTION

For tile grout application: ~1.7 kg/m²/mm x (tile length + tile width) x tile thickness x gap width ÷ tile area
For tile adhesive application: ~1.7 kg/m²/mm

FEATURES & BENEFITS

- Long workable time, easy to apply
- Excellent workability and easy to clean after grouting
- Low shrinkage
- Excellent mechanical strength and abrasion resistance
- Excellent chemical resistance
- Low water absorption
- Anti-efflorescence
- Anti-microbial
- Uniform colour and smooth surface finish

AREAS OF APPLICATION

- Grouting for all kinds of tile
- Suitable for fixing and grouting wall and floor tiles
- Areas where high mechanical strength, high chemical resistance is required
- Areas requiring high level of hygiene
- Grouting tiles finishes at wet areas, e.g. swimming pools, toilet, kitchen, etc.

PACKAGE

3kg/pail or 10kg/pail, other packing can also be provided subject to requirement

MIXING & INSTALLATION

1. Mix two components (Part A & B) evenly by hand trowel or mechanical mixer.
2. For tile grouting application, apply well-mixed ST-ETG to tiled wall with a rubber/sponge trowel diagonally over the tiles and make sure all tile joints are fully filled up with ST-ETG.
3. Remove excess ST-ETG with a rubber/sponge trowel. Clean up the tile's surface with a dampened sponge as soon as possible before it gets hardened.
4. For tile fixing application, apply well-mixed ST-ETG to substrate with notched trowel.
5. Place and press the tiles firmly onto the adhesive bed and ensure good contact. Back buttering is required for large tiles.
6. Refers to method statement for details.

CURING

Natural air curing for 5 days is proven to be adequate for ST-ETG under normal condition.

SHELF LIFE

ST-ETG has a shelf life of 12 months when it is kept away from direct sunlight in unopened originally sealed packaging under dry condition.

HEALTH & SAFETY

Wear NIOSH approved face mask, protective gloves and goggles or equivalent personal protective equipment when handling the material. ST-ETG component A & B may cause allergy effect or irritation to eyes and skin. When contact with eyes, flush immediately with large quantity of water and seek medication as quick as possible.

REFERENCE STANDARDS

- European Standard: BS EN 13888 Class RG; BS EN 12004 Class R2
- General Acceptance issued by Hong Kong Water Supplies Department (WSD GA)

THEORETICAL MATERIAL CONSUMPTION FOR TILE GROUTING

Tile Dimension (mm)			Material Consumption for ST-ETG: kg/m²			
Length	Width	Thickness	Gap Width (mm)			
			3	6	8	10
20	20	4	2	4.1	-	-
50	50	4	0.8	1.6	-	-
95	45	7	1.2	2.3	-	-
230	60	7	0.8	1.5	-	-
100	100	6	0.6	1.2	-	-
200	200	8	0.4	0.8	-	-
300	300	10	0.3	0.7	0.9	1.1
300	600	10	0.3	0.5	0.7	0.9
450	450	12	0.3	0.5	0.7	0.9
600	600	12	0.2	0.4	0.5	0.7

PRODUCT INFORMATION

Colour	White, grey, brown or other colours can be tailor-made subject to customer's requests
Maximum Grain Size	< 0.15 mm
Mixing Ratio	Component A(Resin) : Component B(Hardener) = 10 : 1
Workable Time	> 60 mins @23ºC

PRODUCT PERFORMANCE

Compressive Strength after Dry Storage	BS EN 12808	≥ 45 N/mm²
Flexural Strength after Dry Storage	BS EN 12808	≥ 30 N/mm²
Water Absorption after 240mins	BS EN 12808	≤ 0.1 g
Abrasion Resistance	BS EN 12808	≤ 250 mm³
Shrinkage	BS EN 12808	≤ 1.5 mm/m
Initial Shear Adhesion Strength	BS EN 12003	≥ 2 N/mm²
Shear Adhesion Strength After Water Immersion	BS EN 12003	≥ 2 N/mm²
Tensile Adhesion Strength after 20 mins open time	BS EN 1346	≥ 0.5 N/mm²
Shear Adhesion Strength After Thermal Shock	BS EN 12003	≥ 2 N/mm²

* Note: The test standards for the product performance stated above refer to laboratory test only.

DISCLAIMER

SCORETECH
MASTERING TECHNOLOGY AND PRACTICALITY
Tel: 852-2165 0900
Fax: 852-2590 0511
Email: enquiry@scoretech.com.hk
Website: www.scoretech.com.hk

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