

PRODUCT DATA SHEET

ECO SYSTEMS OPTI-CURE

A HIGH PERFORMANCE RAPID SETTING POLYMER FORTIFIED WHITE CEMENT BASED TILE & STONE ADHESIVE

DESCRIPTION

ECO SYSTEMS OPTI-CURE is rapid setting, flexible, polymer fortified, white cement based tile and stone adhesive specifically formulated for rapid heavy duty installations.

ECO SYSTEMS OPTI-CURE has been specially formulated for use with moisture sensitive stone* by preventing warping and moisture blooming of stone when traditional cement based adhesives are used. ECO SYSTEMS OPTI-CURE is economical when compared to 2 part rapid setting cement based and epoxy adhesives.

ECO SYSTEMS OPTI-CURE has exceptional high early bond strength for rapid installation and can be grouted in approximately 2 hours.

USES

ECO SYSTEMS OPTI-CURE can be used for thin-bed tile and stone installations and medium bed up to 10mm bed thickness.

Suitable tile types including;

- Ceramic Tiles
- Porcelain Tiles
- Mosaics
- Natural stone*
- Agglomerates*
- Terrazo Tiles*
- Glass Mosaic

**Natural stone, Agglomerates, and Terrazo, class A & B only tested EN 14617-12*

Suitable substrates include;

- Concrete (concrete above 35Mpa requires mechanical preparation)
- Compressed Cement Boards*
- Ceramic Tile Underlay / Fibre Cement Boards*
- Existing Tiles
- Brick Masonry
- Concrete Masonry
- Sika Approved Waterproof Membranes

- Cement Mortar Beds / Screeds
- Gypsum Plasterboards

**refer to board manufacturers instructions for further details and load limits.*

CHARACTERISTICS / ADVANTAGES

- C2TFS1 High performance flexible adhesive
- Rapid setting for fast installations
- Single Part, mix only with water
- Low VOC

PRODUCT INFORMATION

Product Declaration	C2TFS1 Class adhesive AS ISO 13007			
Chemical Base	Cement, selected quartz mineral aggregates, polymers, and special additives.			
Packaging	20kg Bags / 64 Bags per Pallet			
Shelf Life	9 months from date of manufacture.			
Storage Conditions	Store off ground in dry cool conditions for maximum shelf life (high humidity will reduce shelf life).			
Appearance / Colour	White powder			
Transverse deformation	≥ 2.5 mm and < 5 mm			
Tensile Adhesion Strength	TEST	RESULT	REQUIREMENT	AS ISO 13007
	Initial Tensile	≥1.5 N/mm²	≥1 N/mm²	
	After Water	≥1 N/mm²	≥1 N/mm²	
	After Heat	≥1.5 N/mm²	≥1 N/mm²	
Slip Resistance	≤0.5mm			

APPLICATION INFORMATION

Mixing Ratio	5-5.5 Litres of cool water per 20kg Bag	
Consumption	Notched Trowel Size	Approx coverage per Bag
	6mm Notched trowel	8-9 m²
	10mm Notched trowel	5-6 m²
	<i>*Consumption is dependent on substrate surface profile, roughness, and application technique.</i>	
Ambient Air Temperature	+5°C Min / +35°Max	
Substrate Temperature	+5° Min / +35° Max	
Pot Life	30 Minutes at 23°C & 50% RH	
Open Time	20 Minutes at 23°C & 50% RH	
Applied Product Ready for Use	USE	WAITING TIME
	Grouting on Walls	2 - 2.5 hours
	Grouting on floors	2-3 hours
	Heavy Foot Traffic	4-6 hours
	Full Traffic / Use	1-2 days
<i>Values determined at laboratory conditions 23°C & 50% RH. Higher temperatures will reduce times and lower temperatures will increase times.</i>		

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LIMITATIONS

- ECO SYSTEMS OPTI-CURE cannot be used directly over tongue and groove timber flooring, particle board, plywood, medium density fibre board, or masonite.
- ECO SYSTEMS OPTI-CURE cannot be used over solvent based waterproof membranes
- Mechanical fixing techniques are required when used above heights of 2.7 meters.
- The performance of cement based adhesives will be compromised when used below 5°C and above 35°C
- Efflorescence is beyond the control of the manufacturer.
- It is recommended in hot climates to regularly clean mixing pails in between adhesive mixes and to ensure cool or cold water is used to maximise the adhesive potlife and open time.
- ECO SYSTEMS OPTI-CURE is not recommended for applications of permanent water immersion, ie swimming pools etc.
- contact Sika for advice if further information is required.

ECOLOGY HEALTH AND SAFETY

Please refer to the latest edition of the Material Safety Datasheet for safe handling requirements.

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

- Substrate deflection: all substrates under loads must not exceed L/360 for tile & L/450 for stone applications.
- Substrates must be properly cured, structurally sound, free from friable particles, clean, dry, and free from contaminants such as dirt, dust, oil, curing compounds, laitance or efflorescence.
- Dependant on the substrate condition and contamination to be removed from the surface, perform adequate preparation techniques such as water blasting, scarification etc to remove all traces of contamination.
- For tiling wet areas, a suitable Sika approved waterproof membrane shall be used prior to tiling and allow to dry prior to application.

Concrete Floors: Allow 28 days for concrete to cure.

Concrete shall be left with an open surface - steel trowel finishes are generally acceptable if they accept water. remove all traces of curing compound, surface sealers, dirt, oil, and any other contaminate that may inhibit the adhesion.

Cement mortar beds / Screeds: Must be installed as per AS ISO 3958.1-2007

Sheeted substrates: All boards / underlays must be installed as per the manufacturer's instructions and specifically designed for tiling.

Priming:

Porous Substrates: Eco Prime WB

Non Porous Substrates: Eco Prep n Prime.

MIXING

Pour cool fresh water into a clean mixing pail before slowly adding the adhesive powder. Mix with a slow speed drill (500rpm Max) for approximately 2-3 minutes to achieve a smooth lump free homogenous mixture. Allow the mixture to stand for 2 minutes then restir for an additional minute without adding any water. Restirring the mixture may be necessary during the potlife of the adhesive.

APPLICATION

Tiles shall be fixed in accordance to AS ISO 3958.1-2007.

Ensure the backs of tiles and clean and free from dust and contaminates.

Apply the adhesive to the substrate with the appropriately sized notched trowel to achieve minimum coverage requirements.

Natural Stone, Terrazzo, and Agglomerates require back-buttering to ensure full coverage is achieved. Apply the adhesive in a single direction. While pressing the tile or stone into the wet adhesive, break the ridges with the tile to fully bed the tile into the adhesive.

It is advisable to periodically check the backs of tiles to ensure adequate coverage is achieved in accordance with the standards.

Only apply as much adhesive that can be covered prior to the adhesive skinning. If skinning occurs remove and replace.

Remove any residual adhesive from the face of tiles with a damp sponge while the adhesive is still wet. Ensure joint a clean and free from excess adhesive and joint are of uniform depth.

Movement, expansion, & control joints must be installed as per AS ISO 3958.1-2007.

CLEANING OF TOOLS

Tools and equipment can be cleaned with water while the adhesive is still wet.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no war-

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Product Data Sheet
ECO SYSTEMS OPTI-CURE
March 2022, Version 02.01
02171010200000316

ECOSYSTEMSOPTI-CURE-en-NZ-(03-2022)-2-1.pdf

