

PRODUCT OVERVIEW

TC Evo Lite S1 is a lightweight, polymer-modified cementitious tile adhesive formulated to provide flexible performance, high bond strength and extended open time for wall and floor tiling applications. The formulation is engineered without added respirable crystalline silica. The lightweight technology provides improved yield and easier handling compared to conventional adhesives, while maintaining S1-class deformability. TC Evo Lite S1 is suitable for internal and external applications in residential and commercial installations where reliable flexibility and consistent performance are required.

KEY BENEFITS & FEATURES

- Formulated without added respirable crystalline silica
- Lightweight formulation for improved yield and easier handling
- S1-class deformability for flexible performance
- Extended open time (E)
- Suitable for continuous immersion applications, e.g., swimming pools, spas, etc.
- Suitable for internal and external wall and floor tiling

SUITABLE TILES

- Porcelain tiles
- Fully vitrified and ceramic tiles
- Natural stone (non-moisture-sensitive)
- Glass and ceramic mosaics

COMPATIBLE SUBSTRATES

- Concrete and cementitious screeds
- Cement render
- Fibre-cement sheet and plasterboard (walls)
- Compressed fibre-cement sheet (floors)
- SAS liquid-applied waterproofing membranes
- Existing ceramic tiles (internal dry areas only)
- Green screeds

SURFACE ASSESSMENT & PREPARATION

All substrates must be structurally sound, dimensionally stable, and clean. Surfaces must be free from dust, oil, curing compounds, release agents, laitance, and contaminants that may impair adhesion. Preparation must comply with AS 3958:2023 requirements.

Substrate	Preparation Requirements
Concrete	Remove laitance mechanically; dense surfaces may require abrasion to achieve key.
Cement Screeds	Ensure fully cured and wood-float finish; remove friable material.
Plasterboard / FC Sheet	Must be rigidly fixed; prime FC sheet and jointing compounds.
Compressed FC Sheet	Fix as per manufacturer instructions; ensure correct screw pattern and support.
SAS Waterproofing Membranes	Allow full cure as per membrane TDS before tiling.
Existing Tiles	Clean and degrease; mechanically roughen or prime with tile-over-tile system (TC Grip Primer).

PREPARING THE ADHESIVE

Add TC Evo Lite S1 powder to clean, cool water while stirring with a mechanical paddle mixer. Mix until a smooth, creamy, lump-free mortar is obtained. Mix for approximately 2 minutes, allow to stand for 3 minutes, then re-mix for a further 1-2 minutes before use.

Recommended water addition is approximately 5.5 liters per 12.5 kg bag. Water demand may be slightly adjusted to suit tile type, substrate, and site conditions, but over-watering must be avoided. Do not use at temperatures below 5°C. The pot life of the mixed adhesive is expected to be around 90 minutes at 23°C and 50% relative humidity.

INSTALLATION METHOD

Ensure substrates are correctly prepared and tiles are clean and free from dust and alum prior to fixing. Tiling must be carried out in accordance with AS 3958:2023.

Select a notched trowel size appropriate to the substrate and tile dimension (refer to AS 3958:2023, Table 5.6.2.2). TC Evo Lite S1 may generally be applied at a bed thickness between 3 mm and 10 mm.

Spread the adhesive onto the substrate and comb in a single direction. For tiles up to 300 x 300 mm use a 10 mm notch trowel, and for Tiles greater than 400 x 400 use a 12 mm notch trowel on the substrate and butter the back of each tile. Apply only up to 1 m² at a time. Press the tiles firmly into the adhesive before it skins, sliding perpendicular to the notch direction to collapse the ribs and achieve the required contact. Do not spot fix, remove all excess adhesive from the tiles before it sets. Periodically lift a tile to verify adequate contact and that there are no voids. Tiles should be fixed in accordance with Australian Standard AS 3958:2023.

Under normal conditions, TC Evo Lite S1 is expected to provide an open time of approximately 30 minutes and an adjustment time of about 20 minutes at 23°C and 50% RH. Only spread as much adhesive as can be tiled within the open time. Clean tools with water immediately after use.

MOVEMENT & CONTROL JOINTS

Movement joints must be installed in accordance with AS 3958:2023, including perimeters, internal transitions, and changes in substrate.

GROUTING & CURING GUIDANCE

Grouting may commence approximately 24 hours after tiling at 23°C and 50% RH. Allow additional time for dense tiles, cool climates, or minimal ventilation. Tile joints can be grouted with SAS TC-8, Litokol Style Tech or Starlike Pro grouts.

COVERAGE ESTIMATES

Coverage varies with trowel size and technique.
Approximate values based on a level substrate:

- 6-7 m² using a 10 mm notched trowel.

STORAGE & PACKAGING

Store unopened bags in a dry environment, off the ground.
Shelf life is 12 months. TC Evo Lite S1 is packed in polylined paper bags, nominal net weight 12.5 kg.

PHYSICAL & APPLICATION CHARACTERISTICS

Property	Typical Value
Colour	White
Water Ratio	5.5 L per 12.5 kg
Pot Life	90 minutes*
Open Time	30 minutes*
Adjustment Time	20 minutes*

PERFORMANCE CRITERIA TO AS ISO 13007

Test	Requirement / Result
Classification	C2 S1 TE
28-day tensile adhesion	≥ 1.0 MPa*
Water immersion adhesion	≥ 1.0 MPa*
Heat ageing adhesion	≥ 1.0 MPa*
Freeze-thaw adhesion	≥ 1.0 MPa*
Extended open time	≥ 1.0 MPa after 30 min*
Slip Test	≤ 0.5 mm
Transverse deformation	≥ 2.5 mm, < 5 mm

*Std. Cond: 23±2°C / 50±5% RH

IMPORTANT NOTES

- Do not use over metal or unstable substrates. For timber or other movement-prone substrates, consult SAS Technical for alternative systems.
- Substrates subject to significant movement, shrinkage or deflection are not suitable without specific system design; refer to AS 3958:2023 and the relevant structural codes.
- For fixing moisture-sensitive natural stone or translucent stone, contact SAS Technical for advice on appropriate adhesive systems.
- Always refer to current SAS system recommendations when using TC Evo Lite S1 as part of a broader tiling system (e.g. waterproofing, screeds, levelling compounds).

SAFETY DATA

This product contains cement and fine mineral fillers and is alkaline when mixed with water. It may cause skin irritation, serious eye damage, and respiratory irritation. Prolonged or repeated exposure to respirable dust may cause long-term health effects.

Avoid contact with skin and eyes and avoid breathing dust. Wear suitable protective clothing, gloves, eye and face protection and ensure good ventilation during mixing and application. In case of contact with the eyes, rinse immediately with plenty of water for at least 15 minutes and seek medical advice. If skin contact occurs, wash with soap and water. Keep out of reach of children. For detailed health and safety information, refer to the current Safety Data Sheet (SDS) for TC Evo Lite S1.

PRODUCT WARRANTY STATEMENT

SAS Australasia Pty Ltd warrants that this product is manufactured to strict quality specifications. Liability is limited to replacement of defective product. This does not cover incorrect application or misuse.

TECHNICAL INFORMATION NOTICE

Information contained in this document represents current knowledge and may change without notice. Users must verify suitability for their specific application. Always refer to the latest TDS version.

DOCUMENT REFERENCE

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