

SafePave® Structural Support (SSS)

Technical Data Sheet

Product: SafePave® Structural Support (SSS)

Category: Structural Tile Backing System

Application: Reinforcement of brittle tiles and pavers in raised pedestal systems

Product Description

SafePave® Structural Support (SSS) is a reinforced structural backing system designed to improve the strength and safety of brittle tiles and pavers.

The system combines a 2.0 mm fibreglass-reinforced GFRP sheet with the SafePave reinforced structural tape, forming a composite backing that reduces tile deflection, improves impact resistance, and enhances safety in the event of tile failure.

SSS is designed for new installations where increased structural reliability is required.

Key Features

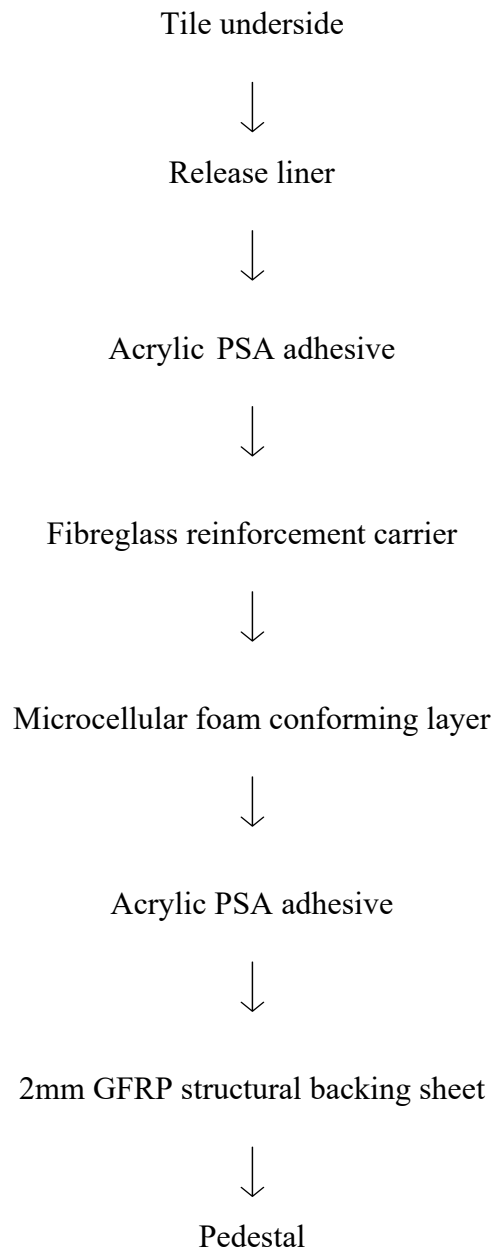
- Structural backing for improved tile performance
 - Improves load distribution across pedestal supports
 - Enhances resistance to impact loading
 - Prevents tile breakthrough
 - Helps contain cracked tiles.
 - Conforms to irregular tile undersides via reinforced tape
 - Peel-and-stick installation
 - No specialist trades required
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Typical Applications

- structural porcelain tiles
- natural stone tiles
- raised pedestal floor systems
- balconies and terraces
- podium decks
- commercial pedestrian areas

System Construction

Typical assembly (top to bottom):



The tape provides impact absorption, conformity and shear transfer, while the GFRP provides structural stiffness.

Testing and Compliance

Overview

SafePave® products are designed to improve the safety and structural performance of brittle tiles and pavers used in raised floor systems.

Testing is conducted at both:

- **material level** (adhesion, tensile, foam performance)
- **system level** (crack containment, impact behaviour, load distribution)

Testing is ongoing as part of continuous product development. See Attachment.

Technical Data

GFRP Structural Layer

Property	Typical Value
Thickness	2.0 mm ± 0.2 mm
Reinforcement	Woven E-glass fabric
Tensile strength	≥ 250 MPa
Elastic modulus	15–25 GPa
Density	~1.6–1.9 g/cm ³

Reinforced Tape Layer

Property	Typical Value
Foam type	IXPE / XLPE closed-cell
Foam thickness	1.5 mm
Reinforcement	200gsm Fibreglass (continuous filament)
Adhesive	Modified acrylic PSA
Service temperature	–20°C to +80°C

The tape is engineered to transfer shear loads and conform to tile surface irregularities .

Performance Benefits

SSS improves tile performance by:

- increasing bending stiffness of tile assemblies

- reducing tensile stress at tile underside
- improving resistance to point loads
- increasing impact resistance
- crack containment and improved safety
- load distribution across tile underside

Peak performance depends on tile thickness and pedestal configuration.

Installation

1. Ensure tile underside is clean and dry
 2. Remove release liner
 3. Apply **SSS** to tile underside
 4. Apply uniform pressure across full surface
 5. Install reinforced tile onto pedestal system
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Storage

- Store flat and dry
- Temperature: 5°C – 35°C
- Protect from contamination and UV exposure

Shelf life: **12 months (tape component)**

Limitations

- Does not replace structural design of pedestal system
 - Not a wind-rated system
 - Performance dependent on correct installation
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Warranty

Covered by **Clever Building Products Limited Product Warranty – 25 Years** when installed in accordance with **SafePave** guidelines.

SafePave®

Safer Raised Floors

Making pedestal paving stronger, safer and more reliable.

CBP117 Pty.Ltd Trading as Clever Building Products

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