



SafePave® Structural Support Elite (SSS-E)

Technical Data Sheet

Product: SafePave® Structural Support Elite (SSS-E)

Category: Engineered Structural Tile Backing System

Application: High-performance structural backing system for tiles in pedestal floor systems, including wind-exposed environments.

Product Description

SafePave® Structural Support Elite (SSS-E) is a **premium engineered composite backing system** designed to provide **maximum structural performance, system stability, and wind uplift capability**.

SSS-E combines a sandwich composite structural panel (GFRP skins with structural core) with the **SafePave®** engineered reinforcing tape, creating a rigid support layer that significantly reduces tile deflection and improves load distribution across pedestal systems.

The system is designed to integrate with the wind uplift restraint clips for exposed environments.

When bonded to the tile, SSS-E forms a **high-performance composite structural assembly**, improving load distribution, reducing deflection, and enhancing overall system reliability.

Key Features

- 100% adhesion to the tile creating a stronger composite
- Enables use of thinner tiles
- Maximum structural reinforcement performance
- Integrated wind uplift capability
- Improves load distribution across pedestals
- Reduces tile deflection and movement
- Enhances impact resistance
- Improves vibration and acoustic behaviour
- Peel-and-bond installation

Typical Applications

- rooftop decks and landscapes
 - high-rise buildings
 - exposed external environments
 - high-traffic pedestrian areas
 - projects requiring wind uplift resistance
 - premium architectural installations
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Technical Data

Structural Panel

Property	Typical Value
Panel thickness	17–18 mm
Skin thickness	0.8 mm GFRP (each side)
Core type	PET structural foam
Density	Lightweight composite
Bending stiffness	Very high

Reinforced Tape Layer

Property	Typical Value
Foam type	IXPE / XLPE
Thickness	1.5 mm
Reinforcement	200 gsm Woven Fibreglass Fabric
Adhesive	Modified acrylic PSA
Temperature range	-20°C to +80°C

Tape performance governs shear transfer and long-term bond stability.

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.

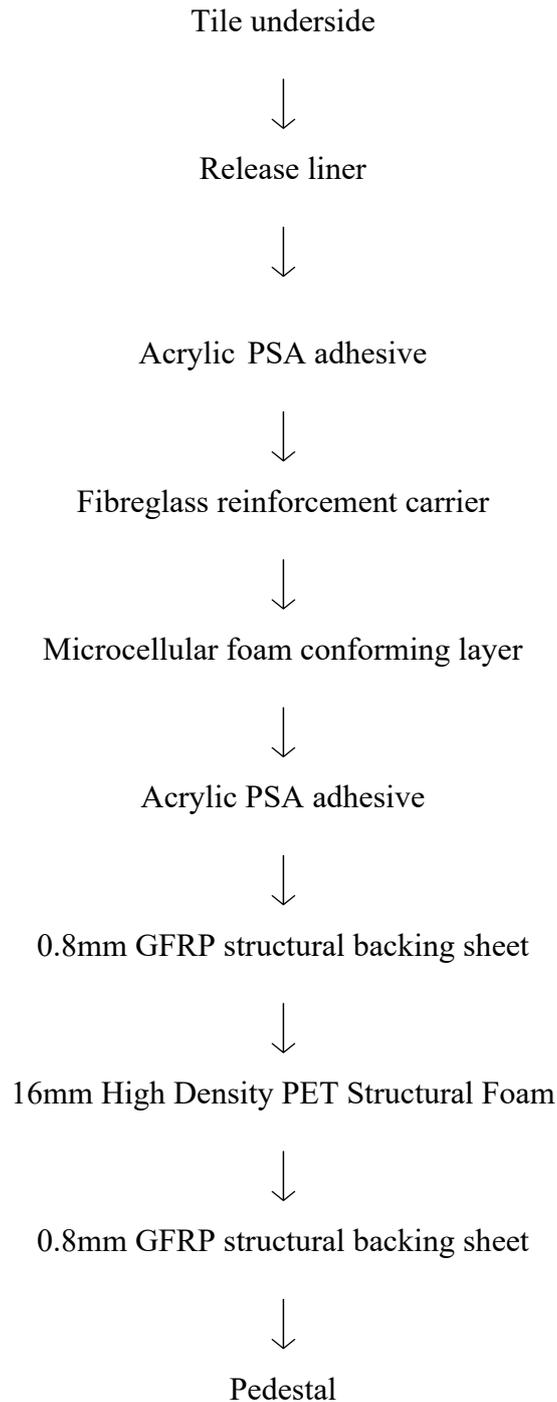
Testing is conducted at both:

- **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.

System Construction

Typical assembly (top to bottom):



Performance Characteristics

SSS-E provides:

- maximum load distribution across pedestal supports
- significant reduction in tile deflection
- improved resistance to impact and dynamic loads
- enhanced structural stability
- improved system safety

Wind Uplift Performance

SSS-E is designed to integrate with mechanical wind uplift restraint systems.

Performance depends on:

- pedestal system design
- clip systems
- tile mass
- installation configuration

System design must be verified by project engineer.

Installation

1. Prepare tile underside
 2. Remove peel layer
 3. Bond **SSS-E** panel to tile
 4. Install assembly onto pedestal system
 5. Install wind restraint clips as required
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Storage

- Store flat
 - Keep dry and protected
 - Temperature: 5°C – 35°C
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Limitations

- Some benefits are only achieved with full system use
 - Wind performance is system-dependent
 - Requires compatible pedestal and restraint systems
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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.

