STILE BOARD®
SEALED. WITH A LIFETIME GUARANTEE.

WATERPROOF TILE-BACKER-BOARD SYSTEM

INSTALLATION MANUAL

VERSION: 02
DATE: 02/08/2024

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Welcome to the installation manual for the Stile Board Waterproof Tile-backer-board System. This manual provides comprehensive instructions to ensure a successful installation of our innovative building product. Please read this manual thoroughly before starting the installation process.

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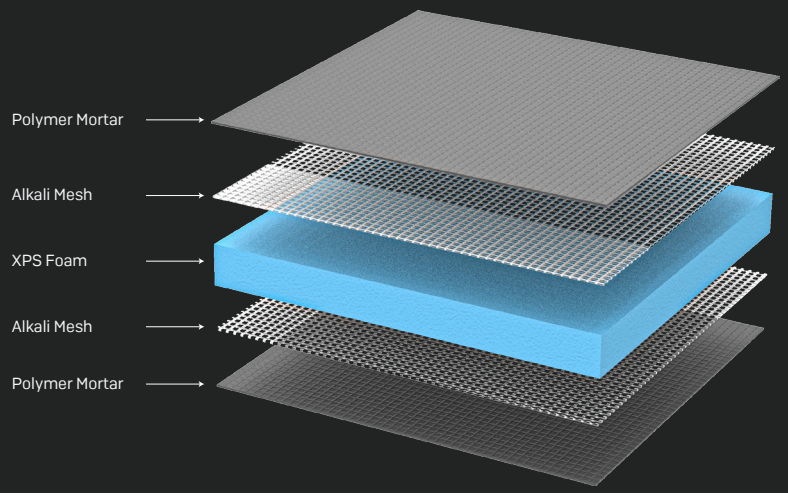
Introduction

1.1 Product Overview

1.1. Product Overview

Stile Board is an advanced construction material specifically designed for bathroom installations. It features a core of 100% waterproof XPS foam, reinforced with fiberglass mesh, and coated with a modified polymer mortar. Designed for versatility, it comes in multiple thicknesses and sizes to meet diverse installation needs. Stile Board is engineered for durability, ease of installation, and superior performance." Stile Board brings superior strength and bonding surface for your tiles. XPS is also a great insulation material.



Key Features of Stile Board

Stile Board boasts an array of impressive features:

UNPARALLELED STRENGTH
Provides a robust bonding surface for tiles.

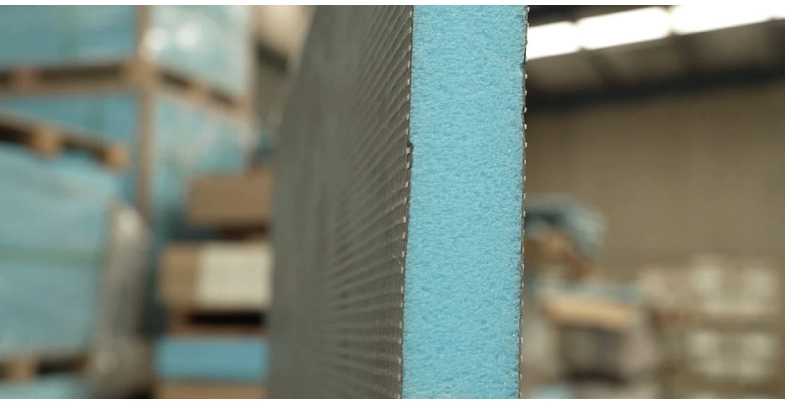
CRACK-ISOLATION CAPABILITY
Reduces the impact of substrate movements on tile integrity.

SUPERIOR INSULATION
The XPS core enhances thermal efficiency within the bathroom.

MOLD AND MOISTURE RESISTANCE
Ensures longevity and a healthy bathroom environment.

LIGHTWEIGHT DESIGN
Facilitates easier handling and faster installation, reducing labor time.

EASE OF INSTALLATION
Engineered for quick installation, saving time and labor.



THE SUPERIORITY OF XPS FOAM

Stile Board utilizes Extruded Polystyrene (XPS) foam, renowned for its robust, water-resistant qualities. This choice of material significantly enhances the board's durability, resistance to mold, and thermal insulation capabilities, ensuring Stile Board outperforms traditional materials." Which means that Stile Board remains durable, efficient, and hygienic over time.

EXTRUDED POLYSTYRENE (XPS) FOAM IS THE HEART OF STILE BOARD.

Unlike its cousin EPS, XPS offers:

- A closed-cell structure, minimizing water absorption and enhancing durability.
- Higher mechanical performance, making it suitable for demanding applications.
- Resistance to rot, mold, and decay which means Stile Board will not break down.

CODEMARK CERTIFICATION

Stile Board proudly bears the CodeMark certification, a testament to its compliance with the highest building standards. This certification provides assurance of quality and compliance, streamlining the approval process for your projects and offering peace of mind to all stakeholders.

1.2 Technical features

In the following sections, we delve into the technical features that underscore the superiority of the Stile Board. These details highlight the core attributes of its XPS composition, focusing on its impermeable waterproof nature, outstanding insulation capabilities, and steadfast moisture resistance. These features collectively contribute to the remarkable durability of XPS, offering invaluable insights into why the Stile Board is an indispensable solution for your tiling needs.

PROPERTIES OF THE FOAM COMPONENT		
Property	Assessed to	Rating
XPS Density	DIN 53420	33 ± 2 kg/m^3
Thermal Conductivity (initial)	DIN 52612	0.034 Watt/mK
Thermal Conductivity (>5yrs)	ASTM C518	0.036 Watt/mK
Compressive Strength (10% deflection)	DIN 53421	Minimum of 0.25N/mm^2
Flexural Strength	ASTM C203	0.30 ± 0.02 MPa
Water Absorption (2-day immersion)	ISO2896	0.2% by volume
Water Absorption (Capillary)	DIN 53428	Zero
Coefficient of linear expansion	N/A	70 x 10^{-6} K^{-1}
Water Vapour Diffusion Resistivity (μ)	DIN 52615	110 - 225 μ
Water Vapour Permeability	ASTM E-96	0.028 ng/Pa.m.s
EU controlled substances content	N/A	none

PROPERTIES OF THE TILE BACKER BOARD		
Property	Assessed to	Rating
Load and water spray test	IAPMO PS 106-2015 5.1 NATA accredited to AS4284	pass
Compressive Strength (10% deflection)	AS/NZS 1170.1:2002	2kPa +
Bond Strength	BS EN 1384	0.3N/mm^2
Maximum Tile Loading Weight	CERAM121107	62kg/m^2
Flexural Strength	ASTM C203	2.05 ± 0.02 MPa
Water Vapour Permeability (Sd)	DIN EN 12086	3.2m
Impact load test	ASTM E695-03 NCC Vol1	3 x 120N/m
Bending Stiffness, E(20mm / 30mm)	EN 12089	601KNmm^2 / 1285 kN/mm^2
Coefficient of linear expansion	N/A	30 x 10^{-6} K^{-1}
Flammability	AS/NZS 1530.3	0
Smoke development	AS/NZS 1530.3	4
Impact Sound Reduction	BS-ISO140-8	dLw = 21
Shear Bond Strength	EN 1448	3.32kg/cm^2
EU controlled substances content	N/A	none

STILE BOARD SIZE, WEIGHT AND DENSITY

XPS DENSITY IS 33KG/M³

Product	Size	Unit N.W./pc(kg)	Package	GW/ctn (kg)
Wall Panel	2400x900x8	7.1		
	2400x900x12.5	8.3		
	2400x1200x15.5	10		
	2400x1200x20	11.9		
Floor Panel	1800x900x40	7.2		
	1800x900x30	7		
	1800x900x50	7.4		
Single Slope Panel	1200x300x(24.8-21)	2	4 pcs/ctn	9
	1200x600x(28.5-21)	4	4 pcs/ctn	17
	1200x900x(32.3-21)	4	4 pcs/ctn	17
	1200x1200x(36-21)	10.4	4 pcs/ctn	42.6
	1200x1200x(36-51)	8.73	4 pcs/ctn	35.9
	1200x1200x(51-66)	10.7	4 pcs/ctn	43.8
Four Way Slope Panel	600x600x40	1.8	3 pcs/ctn	6.4
	600x600x30	1.77	3 pcs/ctn	6.3
	900x900x40	4.67	3 pcs/ctn	15
	900x900x30	4.1	3 pcs/ctn	13.3
	1200x1200x40	8.5	3 pcs/ctn	26.5
	1200x1200x30	7.1	3 pcs/ctn	21.7
	1100x1800x30	11.2	3 pcs/ctn	34.5
Niche Box	350x350x100	1	1 pc/ctn	1.3
	600x350x100	1.5	1 pc/ctn	2
	900x350x100	2.1	1 pc/ctn	2.9
	1200x350x100	2.7	1 pc/ctn	3.5
Tool		0.37	25 pcs/ctn	9.5
Washer		0.0035	1000 pcs/bucket	1.68
Self-Adhesive Fiberglass Mesh	50mmx45m	0.081	50 rolls/ctn	4.35
mechanical fixing	8x50mm	0.005	400 pcs/bucket	2.28
Linear support	1250x256x23	0.76	20 pcs/carton	17.1

- Dimensional tolerances for standard boards: Thickness +/- 2mm, Width+/- 2mm, Length +/- 2mm
- The boards should be stored dry and flat. Slight bowing caused by incorrect storage or transport, for example, is not permanent and does not represent a technical defect. Slight curving can be rectified through storing the boards flat.

THERMAL INSULATION VALUES OF THE STILE BOARD

Board thickness (mm)	XPS MATERIAL PROPERTIES			
	Thickness XPS (mm)	k-value (W/m.K)	R-value (m^2.K/W)	U-value (W/m^2.K)
10	8	0.036	0.222	4.50
12	10	0.036	0.278	3.60
20	18	0.036	0.500	2.00
30	28	0.036	0.778	1.29
40	38	0.036	1.056	0.95
50	48	0.036	1.333	0.75

- STILE BOARD offer thermal insulation that in most constructions satisfies the U-value requirements of different regions building regulations. The nonconductive surface reduces condensation by masking any cold bridging from the substrate beneath.
- The cementitious surface is resistant to heat and the chemicals within the sheathing around electric underfloor heating elements making it safe to use with these types of systems.

1.3 Safety Precautions, Requirements and Limitations

Safety is of utmost importance during the installation process. Adhere to the safety guidelines provided in this manual and wear appropriate safety gear at all times to prevent accidents or injuries.

Installation Safety Precautions:

1. Prioritize Safety: Always prioritise safety by strictly adhering to the guidelines outlined in this manual. This ensures not only your safety but also the safety of those around you.
2. Wear Personal Protective Equipment: Utilize appropriate personal protective equipment (PPE) such as Dust masks, safety glasses, and protective footwear to mitigate the risk of injury during installation. Ensure PPE is suitable for the specific tasks being performed.

STILE BOARD Product Requirements and limitations:

1. Certified Installers: STILE BOARD must be installed by a certified installer. Certified installers must successfully complete the STILE BOARD Inspection Test Plan (ITP).
2. Design and Installation Compliance: The design and installation of the STILE BOARD system and all associated components must comply with installation instructions, detailed specifications, approvals, regulations, codes and laws.
3. Wall Design Compliance: Wall designs must conform to the Building Code of Australia (BCA) requirements to ensure structural integrity and safety.
4. Load-Bearing Floor Substrates: Floor substrates must be load-bearing and solid, with no excessive movement, and must comply with the BCA. Excessive movement compromises the integrity of the waterproofing system and affects tile and board adhesion.
5. Substrate Compliance: All substrates, whether concrete, wood, or metal, must comply with the Building Code of Australia (BCA) to ensure safety and stability.
6. Substrate Cleanliness: Ensure substrates are clean, level, and free from residues or obstructions to provide a solid and reliable foundation for STILE BOARD products.
7. Substrate Stability: Ensure substrates are stable and minimise potential movement to prevent damage or failure of the STILE BOARD installation.
8. Support on Horizontal Surfaces: STILE BOARD must be fully supported by a substrate on horizontal surfaces but can be mounted directly to framing studs vertically to ensure proper support and stability.
9. Correct Product Selection: Select the appropriate STILE BOARD for your specific application, including shower recess, wet area floors, walls, bath surrounds, benches, and countertops. This guarantees optimal performance and durability.
10. Wear Surface Limitations: Never use STILE BOARD products as a wear surface to prevent premature wear and damage. Do not use STILE BOARD as an exposed finish surface. It must be covered with a tile finish or other approved finishes.
11. Substrate Restrictions: Do not install STILE BOARD products over certain substrates such as particleboard, hardwood, Blue board, laminates, and other unstable surfaces. Seek guidance from STILE BOARD for unlisted installations to ensure compatibility and safety.
12. Certified Adhesives: Pair STILE BOARD products with suitable adhesives, grouts, and tiles to ensure compatibility and optimal performance. Use a minimum C2 class adhesive for solid substrates such as concrete floors, compressed fibro, brick walls, or block walls. Follow the adhesive supplier's specifications and warranties. Only use tile adhesives that are warranted by the adhesive supplier for application to STILE BOARD.
13. Concrete and Screed Curing: Ensure full curing of concrete and cement-based substrates before installing STILE BOARD to provide a stable and reliable base.
14. Dry Substrate Requirement: Ensure substrates are completely dry and moisture-free before applying any STILE BOARD panels to avoid trapping moisture.
15. Wood Structure Moisture Levels: Ensure moisture levels in wood structures are below 15% to prevent warping and ensure a stable installation.
16. Priming Substrates: Prime substrates if required to enhance thin-set mortar adhesion and ensure a secure installation.
17. Fixture Installation: Avoid embedding items into STILE BOARD shower bases. Instead, anchor fixtures into the structure behind the STILE BOARD panels to ensure a secure installation.
18. Electric Floor Heating Integration: When integrating electric floor heating with STILE BOARD foam-based items, position the heating elements over the cement membrane-coated surface of the board to prevent damage.
19. Heat Sensitivity: Be aware that STILE BOARD foam-based products can warp at temperatures exceeding 71°C. Exercise caution when installing near heat sources such as kitchen counters or fireplaces to maintain the board's structural integrity.
20. Sealant Curing Time: Ensure STILE BOARD sealants are adequately cured, especially in colder or drier conditions, before exposing them to water to maintain their sealing properties.
21. Waterproofing and Seaming: Strengthen and waterproof seams according to the zone's vulnerability using appropriate STILE BOARD products such as Stile Flex Joint Sealant or specified Stile Board waterproofing tapes/membrane. STILE Flex is tested and approved as the STILE BOARD joint sealant and is integral to the waterproofing system. STILE Flex is not recommended for fullysubmerged joints and must be covered with the specified waterproofing membrane (STILE Fusion). STILE Flex is moisture-curing and may require extended curing times in colder temperatures. Ensure the sealant is fully cured before applying the specified membrane.
22. Solid Wall Installation: Mount panels onto solid walls such as brick, render or concrete using thin-set mortar. Additional fasteners or mechanical fixings can help compress the curing thin-set mortar.
23. Fastening STILE BOARD Wall Panels: Fix STILE BOARD Panels to wall framing using specified STILE BOARD fasteners to ensure a secure and reliable attachment. Ensure frames are installed to BCA requirements with appropriate stud spacing: 600mm centres require a 15.5mm panel, and 450mm centres require a 12.5mm panel. Secure the galvanised washers and galvanised screws at every 300mm spacing on the walls and 150mm spacing on the ceiling. Use the appropriate screws for either timber or metal frames.
24. Floor Installation: Affix panels to horizontal bases such as subfloors using thin-set mortar and STILE BOARD fasteners, positioning one washers and screws per square foot, ideally in seams.
25. Tile Installation: Use thin-set mortars endorsed by tile adhesive producers and compatible with STILE BOARD items for tile installation to ensure a strong bond and long-lasting finish. Floor tiles should be no smaller than 50mm x 50mm when using a specified cement mortar tile adhesive. For smaller format tiles, prepare the STILE BOARD floor surface with a thin-set epoxy skim coating and then use a V-notch trowel with a specified epoxy adhesive and epoxy grout after curing.
26. Steam Rooms: For steam rooms, use materials approved by producers for high-temperature and submerged scenarios to ensure safety and performance.
27. Premixed and Organic Mastic Mortars: Avoid premixed and organic mastic mortars in wet zones, as they may promote mold growth and underperform in humid conditions.
28. Curing Durations: Follow manufacturer directives regarding curing durations to ensure material robustness and efficacy. Rushing the process may compromise the integrity and performance of the materials.
29. Expansion and Movement Joints: The implementation of STILE BOARD does not eliminate the need for expansion or movement joints. Follow Australian standards to ensure proper movement accommodation.

30. Weight and Load Capacities: When the structure itself is stable, Panels can support up to 100kg per m² on walls and 80 kg per m² on ceilings. Tiled Shower Floors can sustain up to 1,000 kg per m² and resist focal loads of 6.3 kg per mm2 with tiles at least 6.5mm thick.
31. Fire-Retardant Composition: STILE BOARD is manufactured with a fire-retardant composition and has been tested to AS/NZS 1530.3, meeting the requirements of the BCA and making it suitable for use within bathrooms of Class 2-9 buildings.
32. Warranty Conditions: The STILE BOARD system is not warranted if the building exhibits excessive structural movement, evidenced by structural cracks and compromised integrity.
33. Proper Storage: Store STILE BOARD in its original packaging in a dry, indoor location to prevent damage. Avoid exposure to direct sunlight and excessive humidity, which can compromise the board's integrity.
34. Consult Safety Data Sheets: Always consult STILE BOARD's Safety Data Sheets (SDS) before commencing work to understand any potential hazards and safety measures required.
35. Surface Finish Materials: Only apply the intended surface finish materials to STILE BOARD products to ensure compatibility and performance.
36. Submerged Installations: STILE BOARD is not recommended for submerged installations, such as pools or water features.
37. Fixture Installation: Avoid embedding items into STILE BOARD shower bases. Instead, anchor fixtures into the structure behind the STILE BOARD panels to ensure a secure installation.
38. Moisture and Hydrostatic Pressure: Ensure there is no excessive moisture or hydrostatic water pressure in concrete subfloors to prevent damage to the STILE BOARD. Rising moisture can get trapped underneath the STILE BOARD system. Concrete subfloors must not be subject to hydrostatic water pressure. Do not use STILE BOARD as a negative pressure membrane where the substrate is subject to excessive pressure.
39. Rising Moisture Prevention: Rising moisture can get trapped underneath the STILE BOARD system. Concrete subfloors must not be subject to hydrostatic water pressure. Do not use STILE BOARD as a negative pressure membrane where the substrate is subject to excessive pressure.

By adhering to these comprehensive guidelines and ensuring compliance with Australian law and the Building Code of Australia (BCA), the installation of STILE BOARD products will be safe, effective, and durable.

2

Tools and Materials Preparation

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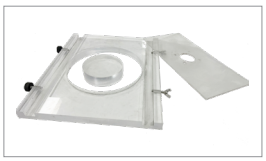
2.1 Required Tools

Before beginning the installation of the Stile Board, ensure that the following tools are available:

CIRCULAR SAW WITH TRACK

Necessary for cutting the Stile Board to the desired dimensions. Models with vacuum attachments are recommended for efficient dust management.



LINEAR SUPPORT JIG

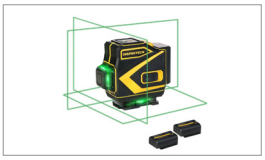
Assists in guiding the router, crucial for preparing the recess for the puddle flange's linear support.

BLOWER

Used for removing dust and debris from the installation area.

MEASURING TAPE

Essential for precise measurement and marking.

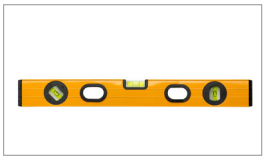


LASER LEVEL

Ensures accurate marking of water-stop angles and stud frames.

CLAMPS

May be required to hold the Stile Board in place during various steps.



LEVEL

Important for verifying straight lines and level accuracy on walls and floors.

UTILITY KNIFE

For precise scoring and cutting of the Stile Board.

ROUTER WITH VACUUM ATTACHMENT

Recommended for fine-tuning the edges of the Stile Board, especially for creating recesses at floor and wall junctions.

VACUUM

Crucial for keeping the workspace clean during the installation process.

SANDPAPER BLOCK

Useful for smoothing rough edges.

MULTI-TOOL

A versatile tool for various tasks during installation.

IMPACT DRIVER

Helpful for securing screws in framed walls.

MASONRY DRILL

Used for drilling holes in brick walls for mechanical fixtures.

HAMMER

Needed for installing mechanical fixtures into brick walls.

MIXER & TROWEL

Required for preparing and applying adhesive or mortar.

CAULKING GUN

Used for applying sealant along the edges of the Stile Board.

PLASTIC FLAT & CORNER SCRAPERS

Ideal for smoothing sealant in corners and joints.

METAL SCRAPER

Used for applying fibre mesh to joints.

WORK HORSE OR EQUIVALENT

Recommended for stable support of the Stile Board during various tasks.

HOLE SAW (VARIOUS SIZES)

Necessary for making openings for fixtures or outlets.

PAINT BRUSH & MINI ROLLER:

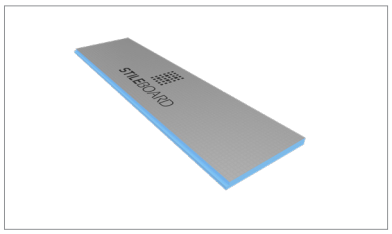
For applying the waterproof membrane to the joints.

2.2 Material List

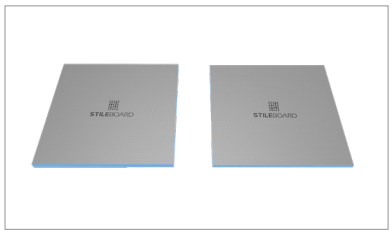
Ensure you have the following materials before commencing the installation:

STILE BOARD WATERPROOF TILE-BACKER-BOARD PANELS

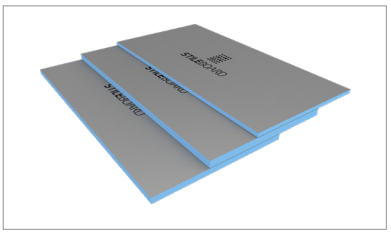
Confirm the necessary quantity and types of panels. This can be determined either by onsite calculations or by using the guided estimate from our online estimating tool.



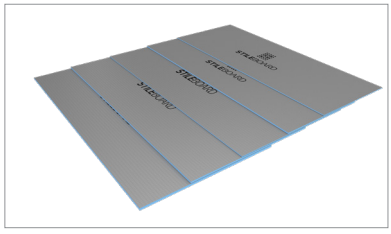
Single Slope Panels
1200x300 -{ 21-24.8 }
1200x600 -{ 21-28.5 }
1200x900 -{ 21-32.3 }
1200x1200 -{ 21-36 }



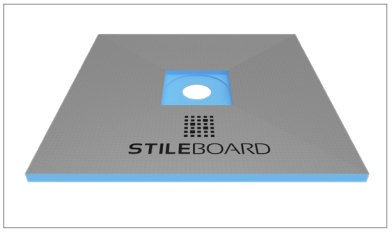
Single Slope Extender Panels
EXT A 1200x1200 -{ 36-51 }
EXT B 1200x1200 -{ 51-66 }



Floor Panels
1800x900x30
1800x900x40
1800x900x50
2400x1200x20

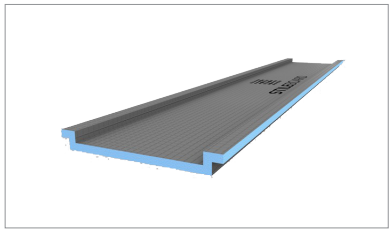


Wall Panels
2400x900x8
2400x900x12.5
2400x1200x8
2400x1200x15.5
2400x1200x20



4 way Slope Panels
600x600x30
600x600x40
900x900x30
900x900x40
1200x1200x30
1200x1200x40
1800x1100x30

Niche Box
350x350x100
600x350x100
900x350x100
1200x350x100



Linear Support Panel
1250x26x23

PUDDLE FLANGE

50mm | 80mm | 100mm

Verify that its size is compatible with your drain size. It is used in linear or floor waste supports and should be anchored using PVC adhesive and the Stile Flex sealant.

JOINT SEALANT ADHESIVE

600mL Sausage

The specified Stile Flex Sealant is essential for ensuring a leakproof installation.

ANGLE PROFILES

1.6mm Thickness
50x50x3000mm | 60x60x3000mm

Important for projects involving shower recesses, especially for step-downs and water-stops at doorways. Our online tool can assist in determining the required variants and quantities.

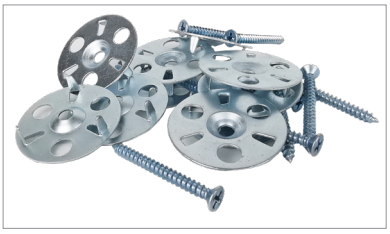
Material List

MECHANICAL FIXINGS

Galvanized
8x60mm | 5x50mm

Stile Board Mechanical fixings are used to securely anchor Stile Boards to brick or block walls after the adhesive has dried, ensuring stability with 600mm spacing between each fixing.

WASHERS & SCREWS



Galvanized w/ Tab

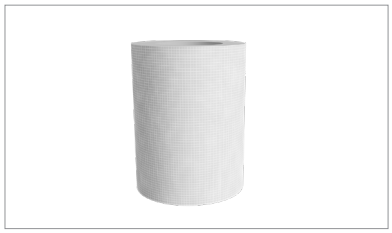
Stile Board washers and screws are used to securely anchor Stile Boards to framed walls with 300mm spacing, ensuring a stable and durable installation.

PLASTIC MECHANICAL SCREW FIXING

40mm | 70mm | 100mm

The plastic screw fixing is used to mechanically secure the Stile board panels together, in addition to the Stile Flex sealant.

FIBREGLASS MESH



50x45mm

Apply self-adhering fibreglass mesh to the joints prior to waterproofing. This reinforces the joints and ensures a more durable installation.

WATERPROOF MEMBRANE

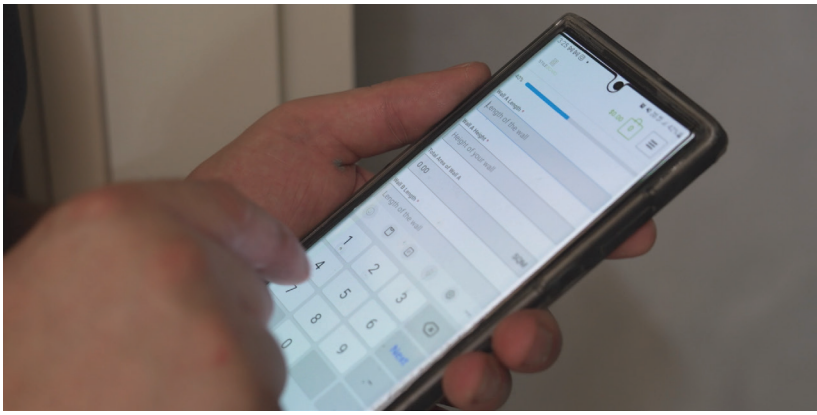
Use the Stile Fusion waterproof membrane specified for Stile Boards. It should be applied over the cured sealant on the joints to ensure effective waterproofing.

JOINT WATERPROOF BANDAGE

12.5cmx10m Roll

For use in shower recess joints, this product should be applied over cured sealant and embedded into the Stile Fusion waterproof membrane for enhanced protection.

2.3 Material Estimation



For material quantification, leverage our web-based estimation tool. By entering project specifications, you will receive a detailed list of suggested materials.

Virtual Estimation Utility: To discern the necessary panel quantities and accessory types (e.g., sealants, washers, angles), navigate to our website. Our user-friendly virtual estimation tool will guide you in determining your needs.

Disclaimer:

- *The virtual estimating tool is designed to assist in the estimation of the products required for your project. However, it is provided as a guide only and should not be relied upon as the sole basis for purchasing decisions. We are not liable for any discrepancies or inaccuracies that may arise from its use. Always verify quantities and specifications with a qualified professional before proceeding with your project.*

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Step 1:
Pre-Installation Setup

3.1 Substrate Inspection and Cleanup

Prior to beginning the installation of Stile Board, a thorough inspection and cleanup of the substrate is essential. Follow these steps to ensure an optimal setup:

Remove Obstructions:

- Ensure that the installation area is free from any obstacles. This includes clearing both floors and walls of any protrusions or foreign materials such as residual render, nails, or old adhesives.

Inspect for Existing Waterproofing and Contaminants:

- Particularly in retrofit projects, thoroughly examine floorboards or concrete slabs for any remnants of old waterproofing membranes or other contaminants. It's crucial to ensure that these surfaces are free from previous waterproofing layers or any other substances that could negatively impact the adhesion and effectiveness of the new installation.

Inspect Substrate Condition:

- Examine the substrate meticulously for any issues that might hinder the bonding process. This includes checking for unevenness, cracks, or any other signs of damage.

Ensure Cleanliness and Dryness:

- The surface where the Stile Board will be adhered must be completely clean and dry. Any contaminants or moisture can adversely affect the bonding quality.

Evaluate Level and Flatness:

- Ascertain that the substrate is level and flat. This is crucial for ensuring a smooth installation and optimal adherence of the Stile Board.

Consider New Construction Context:

- In new construction scenarios where the use of Stile Board has been integrated into the design from the outset, some of these preparatory steps may be less extensive or already addressed.

Implementing these preparatory measures is fundamental to achieving a successful installation, ensuring a strong and lasting bond between the Stile Board and the substrate.

3.2 Establishing Finished Floor Level

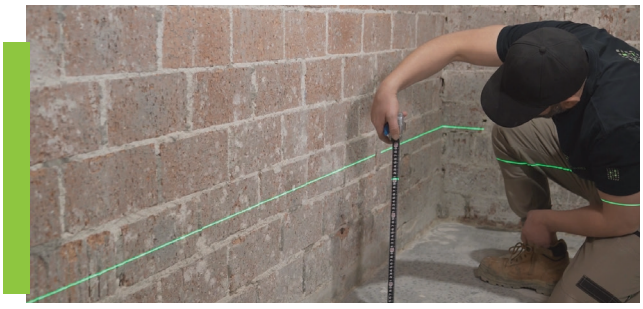
To ensure a level foundation for Stile Board installation, follow these guidelines:

Assess Substrate Evenness with Laser Level

- Start by using a laser level to accurately evaluate the evenness of the substrate. This is essential for determining the suitability of the base for Stile Board installation.

Correcting Minor Unevenness

- If unevenness within a range of up to 3mm is detected, adjustments can be made using adhesive. This minor level discrepancy does not necessitate the use of a Stile Board specific self-leveling compound.



Crucial Alignment of Floor Panels

- When installing Stile Board on surfaces with minor unevenness, it's critical to align the floor panels properly. Use a level during the installation to ensure that the panels are precisely aligned and the surface is even with the correct falls achieved, which is vital for a successful and durable installation.

Use Self-Leveling Compound for Larger Discrepancies

- If discrepancies in level exceed 3mm, it becomes necessary to use the specified Stile Board self-leveling compound. Always consult the product specifications for correct usage and ensure an optimal base for the Stile Board.

Implementing these preparatory measures is fundamental to achieving a successful installation, ensuring a strong and lasting bond between the Stile Board and the substrate.

3.3 Installation of water Stop Angles

For optimal water management in shower areas, the correct installation of water stop angles is key.

Adhere to the following steps:

Determine Shower Screen Type

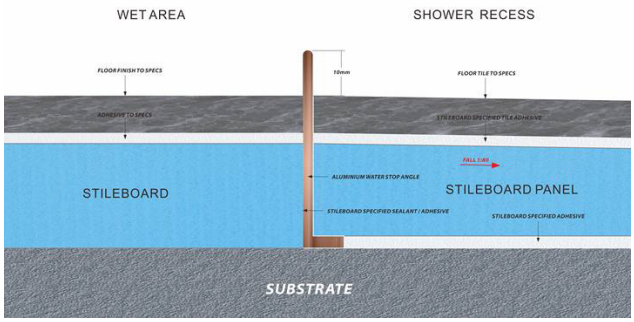
Choose the appropriate type of water-stop angle based on whether your shower screen is frameless, semi-frameless, or framed.

Align Water-Stop Angles According to Shower Design

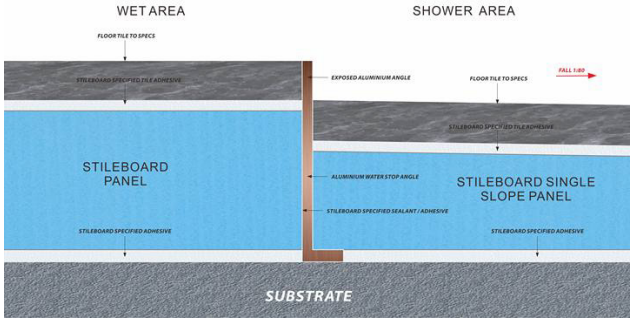
Carefully position the water-stop angles to align with the specific layout of your shower for effective water containment.

- For Frameless Shower Screens (Using Aluminium Angles): These provide a 10mm step-down, ideal for frameless screens. Considering standard tile, adhesive, and Stile board thicknesses, the total should be around 55mm–60mm. The XPS Stile board in the shower recess will be 10mm lower than the wet area XPS, ensuring the required step-down to the floor tiles. Employ aluminium angles of 55mm/60mm @1.6mm – 3mm with Stile board PU sealant/adhesive for sealing
- For Semi-Frameless or Framed Screens (Using PVC Angles): Choose angles that are higher than the total thickness of the 30mm XPS, tile, adhesive, plus an additional 10mm above the tile surface. Employ PVC angles of 70mm @1.6mm thick.

Framed/Semi-frameless



Frameless w/ 10mm Stepdown



Leveling the Angles

Utilise a laser level, stile flex sealant and packers to adjust the height of the angles accurately. This is especially crucial for ensuring that the angles are properly set to the Finished Floor Level (FFL) and effective.

Setting the Door Angle

For the aluminum water stop angle at the door, use a laser level to ensure it is set accurately at the Finished Floor Level (FFL). This step is critical for maintaining a consistent and effective water barrier at the entrance of the bathroom.

By following these steps, you can ensure that the water stop angles are installed correctly, providing an effective solution for water management in your shower area.

3.4 Self-levelling Procedure

Ensuring a level floor is a critical step in preparing for the installation of Stile Board. The following procedure outlines the steps to achieve this:

Setting Up the Laser Level

Begin by setting up your laser level with the horizontal beam. This will be your primary tool for ensuring a level surface across the installation area.

Identify the Highest Point of the Substrate

Locate the highest point on the substrate. This will become your reference point for the targeted height of the entire floor.

Positioning Packers to Match Targeted Height

After determining the height of the highest point (e.g., 390mm), position packers around the room, each adjusted to this height. This creates a uniform level that aligns with the highest point in the room.

Using Silicone Adhesive with Packers

Secure the packers in place using silicone adhesive. The adhesive helps maintain their position during the leveling process, ensuring a stable and level base for the Stile Board.

By meticulously following these steps, you create a level base which is vital for a successful and efficient Stile Board installation.

After setting up the level indicators and packers, proceed with the preparation and application of the self-leveling compound:

Apply the Correct Primer

Before applying the self-leveling compound, it is crucial to apply the appropriate primer to the substrate. Make sure the primer you use is intended for the type of substrate you are working with. This ensures optimal adhesion and effectiveness of the self-leveling compound.

Mixing the Self-Leveling Compound

It is imperative to mix the self-leveling compound correctly according to the manufacturer's instructions. Improper mixing can lead to suboptimal results, affecting the level and stability of the floor. Follow the specified ratios and mixing time to ensure a consistent and effective mixture.

Applying the Self-Leveling Compound

Once mixed, pour the self-leveling compound onto the prepared surface. Start from the farthest corner and work your way towards the exit. Use a spreader or trowel to guide the compound, ensuring it flows and sets to the height indicated by the level indicators and packers. The goal is to create a smooth, level surface that matches the targeted height across the entire room.

Allow Adequate Curing Time

After application, allow the self-leveling compound to cure as per the manufacturer's recommended time. Avoid walking on the surface during this period to ensure it sets evenly and achieves the desired level.

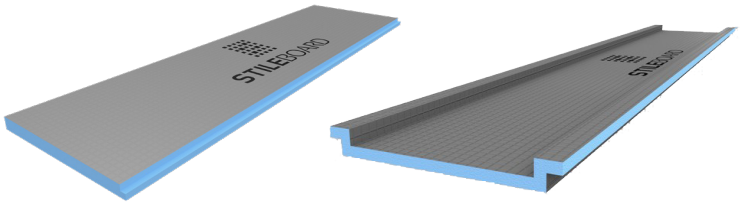
By carefully following these steps, including the correct application of primer and accurate mixing and application of the self-leveling compound, you will create a well-prepared, level base for the Stile Board installation. This foundation is critical for the longevity and effectiveness of your installation.

STILEBOARD®
SEALED. WITH A LIFETIME GUARANTEE.

Step 2: Shower Recess Floor Installation

4.1 Determining Type of Drain or Floor Waste

Selecting an appropriate drain or floor waste is a key factor in the functionality and design of your shower recess with the Stile Board system. Follow these professional guidelines for optimal integration:

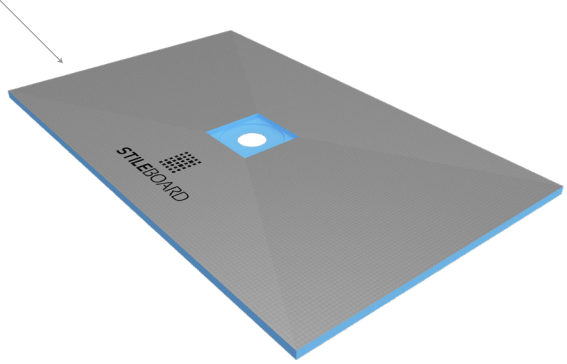


Evaluate Shower Design in Relation to the Stile Board System

Assess the layout and design of your shower or wet area, ensuring it aligns with the capabilities of the Stile Board system. The chosen drainage solution should enhance both the practicality and aesthetic appeal of the shower, while being fully compatible with the Stile Board setup.

Drain Type Selection

- **Linear Drains**: Implement the Stile Board's linear support with a single or 2-way slope panel system, expertly engineered for linear drains. This cutting-edge, patented solution offers versatile drainage, accommodating various drain locations. It is particularly suited for modern shower designs, guiding water efficiently towards the linear drain.
- **Floor Wastes:** Choose the 4-way slope panel system, specifically designed for floor waste drainage. This system ensures comprehensive drainage from all directions, focusing on the central floor waste. It's the perfect match for traditional drainage arrangements, providing a consistently even slope for effective water management.



Tailoring Drainage Solutions

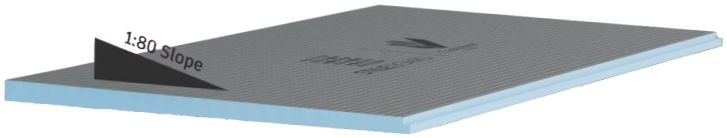
It's critical to match the drainage system to the specific requirements of the area, including the direction of water flow and tile size considerations. For instance, large format tiles may not be suitable for floor waste drainage without additional modifications. In such cases, a linear drain system may offer a more suitable solution.

Integration with Waterproofing and Slope Requirements

Confirm that your selected drainage system aligns seamlessly with the waterproofing protocols and slope design of the Stile Board system. This ensures a watertight installation and contributes to the long-term integrity of the shower recess.

Building Code Compliance

The Stile Board's slope panels are meticulously designed to comply with the 1:80 and 1:100 fall ratio, as mandated by the Building Code of Australia (BCA), ensuring your installation meets national standards.



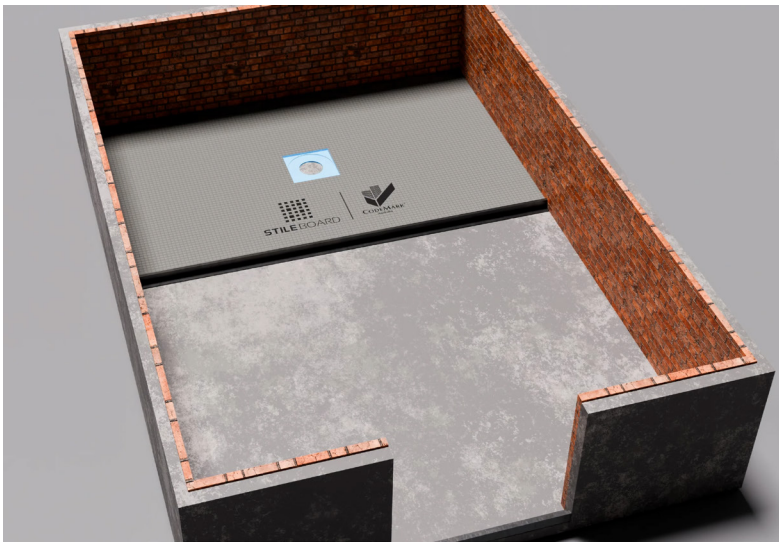
By selecting the appropriate drain or floor waste type and integrating it with the Stile Board system, you achieve a functional, visually appealing, and regulation-compliant shower installation, tailored to meet the specific requirements of your project.

4.2 Using 4-Way Slope Panel for Floor Waste

The 4-Way Slope Panel, integral to the Stile Board system, is a key element in bathroom installations, offering unparalleled versatility and efficiency in water drainage solutions. Its adaptable design makes it suitable for a variety of applications, both within the confines of a shower recess and in the larger context of a wet area.

1. Applications in the Shower Recess

Assess the layout and design of your shower or wet area, ensuring it aligns with the capabilities of the Stile Board system. The chosen drainage solution should enhance both the practicality and aesthetic appeal of the shower, while being fully compatible with the Stile Board setup.



Drain Type Selection

- **Central Floor Waste Installation:** Primarily used in shower recesses with central floor wastes, the 4-Way Slope Panel's unique design channels water from all directions towards the drain. This feature is particularly beneficial for conventional shower layouts, ensuring effective water drainage.
- **Custom Shower Configurations:** The panel's flexibility allows it to be tailored for showers with non-standard shapes or larger dimensions. It accommodates slightly off-center drain locations, with the proviso that the distance from the inlay for the floor waste support to the edge of the board fits within the dimensions of the shower recess on all sides. The availability of various panel sizes adds to its adaptability, catering to diverse drain placements and shower configurations.
- **Step-Down Shower Applications:** For showers that require a step-down, especially those with frameless screens, the panel's thickness can be selected to create the desired level difference. This ensures effective water retention within the shower area, crucial for frameless designs.

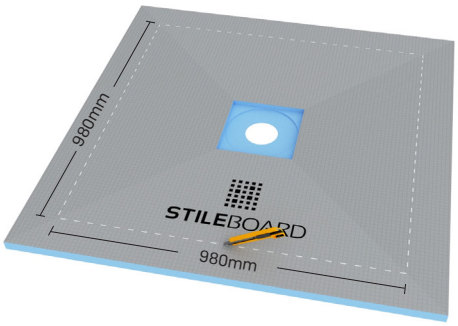
Utilizing the 4-Way Slope Panel in these diverse settings enhances water management efficiency and integrates seamlessly with the aesthetic demands of modern bathroom designs. This adaptability not only elevates the functionality of the shower and wet area but also contributes significantly to the durability and overall appeal of the bathroom.

4.3 Measuring and Selecting 4-Way Slope Panel Size

Proper selection of the 4-Way Slope Panel size and thickness is essential for the Stile Board system's performance in your shower recess. Follow these guidelines:

1. Determine Panel Size:

- **Measure Shower Recess Dimensions:** Carefully measure the interior dimensions of your shower recess. For a recess of 980x980 mm, for instance, select a panel larger than these measurements to effectively create a slope towards the waste.
- **Selecting the Appropriate Panel Size:** For a 980x980 mm recess, a 1200x1200 mm panel would be suitable. In the case of rectangular recesses, choose a panel size, like 1100x1800 mm, that covers the area efficiently and is centered.



2. Account for Drain Position:

- **Assess Drain Location:** When selecting the panel size, consider the position of the drain. Measure the distance from the drain to the nearest wall or waterstop angle. The longest distance from the drain to any side of the panel should be within the panel's capability, from its centre to the edge.
- **Panel Size Decision:** Based on these measurements, determine if a larger panel is needed, or if an additional floor panel may be required as an alternative solution to extend the space. The floor panel can be installed with a slight fall by adding more adhesive. This ensures that the panel adequately accommodates the drain position for effective water management.

3. Selecting Panel Thickness:

- **Based on Shower Screen Requirements:** The panel thickness is dependent on the type of shower screen installed. For frameless shower screens, which often necessitate a step-down, a 30mm thick panel is typically ideal. This thickness helps create the necessary elevation difference to contain water within the shower area.
- **Available Stile Board 4-Way Slope Panel Options:**
  - 600x600x30mm
  - 600x600x40mm
  - 900x900x30mm
  - 900x900x40mm
  - 1200x1200x30mm
  - 1200x1200x40mm
  - 1100x1800x30mm

By accurately measuring the shower recess and considering the drain position, you can select the most suitable size and thickness from the Stile Board 4-Way Slope Panel range, ensuring a perfect fit and effective drainage in your shower installation.

4.4 Marking and Cutting 4-Way Slope Panel

Precise cutting of the 4-Way Slope Panel is crucial for a snug fit within the shower recess. Follow these steps to ensure accuracy:

1. Measuring for the Cut:

- Measure from Drain to Boundaries: Start by measuring the distance from the drain center to the surrounding walls or waterstop angles on all four sides of the shower recess.
- Transfer Measurements to Panel: Carefully transfer these measurements onto the Stile Board 4-way slope panel. Ensure that the markings are accurate and clear.

2. Cutting the Panel:

- Mark the Panel: Use a ruler or a straight edge to mark the cutting lines on the panel based on your measurements.
- Use a Circular Saw: Carefully cut along the marked lines with a circular saw. Ensure the saw is set to the correct depth to cut through the panel cleanly and accurately.

3. Test Fit and Alignment Check:

- Alignment of Recessed Floor Waste Support: During the test fit, it's crucial to verify that the recessed floor waste support built into the 4-way slope panel aligns precisely with both the hole of the panel and the drain pipe. This alignment is essential for efficient drainage and to prevent water leakage.
- Using Stile Board Puddle Flange as a Guide: To facilitate this alignment check, use the Stile board puddle flange as a guide. Position it over the recessed area and ensure it fits snugly, indicating proper alignment. If there are any misalignments, adjustments should be made accordingly before proceeding to the next steps.

4. Preparing for Wall Panel Installation:

- Router the Perimeter: At the junctions where the floor meets the walls, use a router to create a recess around the perimeter of the 4-way slope panel. This recess should be slightly wider than the thickness of the wall panels (plus an additional 1.5mm for clearance) and approximately 10mm deep.
- Create a Slot for the Wall Panel: The recessed area you've routed will serve as a slot for the wall panels to slide into during their installation.
- Ensuring a Gasket-Type Seal: This slotting technique allows for the sealant to be applied more effectively, creating a gasket-type seal that enhances the waterproof integrity of the installation.

By carefully marking, cutting, and fitting the 4-Way Slope Panel as outlined, you ensure a precise and secure fit within the shower recess, setting a solid foundation for the subsequent steps in your Stile Board installation.

4.5 Installing 4-Way Slope Panel and puddle flange

Proper installation of the 4-Way Slope Panel and puddle flange is essential for ensuring efficient water management in your shower recess. Follow these steps for a seamless installation:

1. Prepare the Area:

- Clean the Substrate: Ensure the substrate where the panel will be installed is clean, dry, and free of debris.
- Apply Primer if Necessary: Depending on the substrate material, apply a primer to enhance the adhesion of the panel.

2. Install the 4-Way Slope Panel:

- Apply Adhesive: Use a compatible adhesive for the Stile Board system. Apply it evenly on the substrate where the panel will be placed.

- Apply Sealant at Junctions: Use Stile Flex sealant where the 4-way slope panel meets the alumnium angle onto the edge of both the Stile Board and the alumnium angle. This ensures a water tight seal at critical junctions.

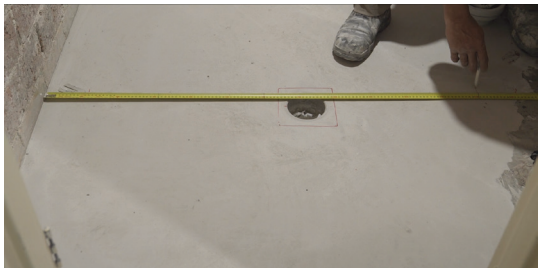
- Position the Panel: Carefully lay the 4-Way Slope Panel onto the adhesive, ensuring it is aligned correctly with the walls, water-stop angles, and the drain position.

- Press Down Firmly: Apply pressure evenly across the panel to ensure good contact with the adhesive and no air pockets are left beneath it.

- Remove excess sealant to ensure a clean surface for the final sealant application.

3. Install the Puddle Flange:

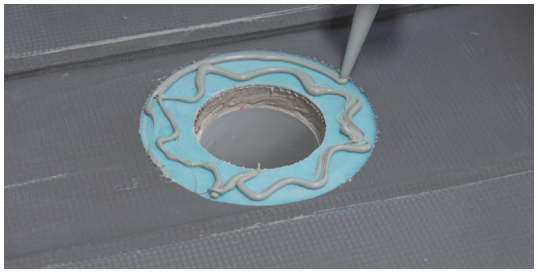
- Align with Drain Pipe: Place the puddle flange into the recessed area of the panel, aligning it with the drain pipe.



- Check for Fit: Ensure the puddle flange sits flush and securely within the recess. Adjust as necessary to achieve a perfect fit.

- Apply PVC Primer: Before installing the puddle flange, apply a PVC primer to it. Ensure that the primer is evenly applied and allow it to dry completely. This step is crucial for enhancing the adhesion of the PVC adhesive.

- Apply PVC Adhesive and Stile Flex Sealant: Once the primer has dried, simultaneously apply PVC adhesive to the internal surface of the drain pipe and the outer drainage insert of the puddle flange. Additionally, apply Stile Flex sealant to the underside of the puddle flange. This dual application ensures a robust and consistent seal, critical for preventing any potential leaks.



- Secure and Align the Puddle Flange: Carefully place the puddle flange into position, aligning it with the drain pipe. Press firmly to ensure a secure bond between the puddle flange, the adhesive, and the sealant. The correct alignment and securing of the puddle flange are key to maintaining the integrity of the drainage system.

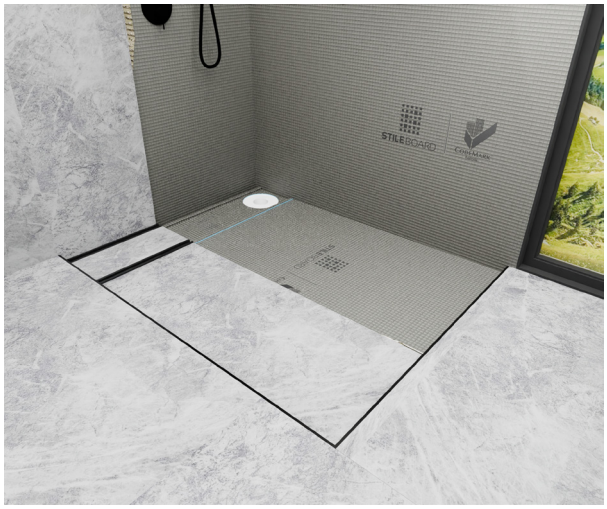
4. Final Inspection:

- Check Alignment and Level: Confirm that the panel and puddle flange are correctly aligned and level. This ensures efficient drainage and a flat surface for tile installation.
- Inspect for Gaps: Look for any gaps or potential areas for water leakage around the puddle flange and panel edges. Seal any gaps with Stile Flex sealant.

By carefully installing the 4-Way Slope Panel and puddle flange as outlined, you create a solid, leak-proof foundation for your shower recess, setting the stage for the final tile installation.

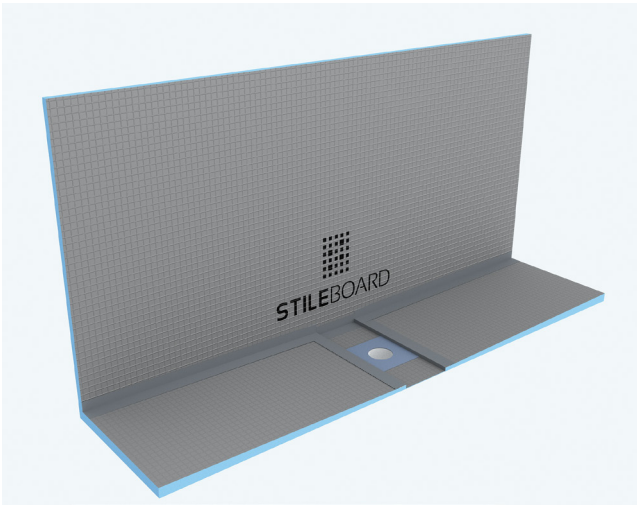
4.6 Uses of Single Slope Panels with Linear Support in Shower Installations

The Single Slope Panel and Linear Support system, a patented design within the Stile Board range, offers versatile solutions for shower recesses and wet rooms. This innovative system is specifically crafted to adapt to various drain positions and bathroom layouts, whether it's a confined shower space or an expansive wet room. Here are some of the key applications:



1. Single Slope Towards Wall-Mounted Linear Drain:

- In scenarios where the linear drain is positioned adjacent to a wall, the Single Slope Panel is ideal. It creates a slope directing water efficiently towards the drain, ensuring proper drainage and preventing water stagnation.



2. Creating a 2-Way Slope with Dual Panels:

- For linear drains situated away from the wall, such as in the center of a shower area or wet room, two Single Slope Panels can be combined to form a 2-way slope. This configuration channels water from both sides towards the central linear drain, optimising drainage over a larger area.
- The Linear Support plays a critical role here, bridging the two panels and ensuring a seamless and effective slope towards the drain.

3. Adaptable to Various Bathroom Layouts:

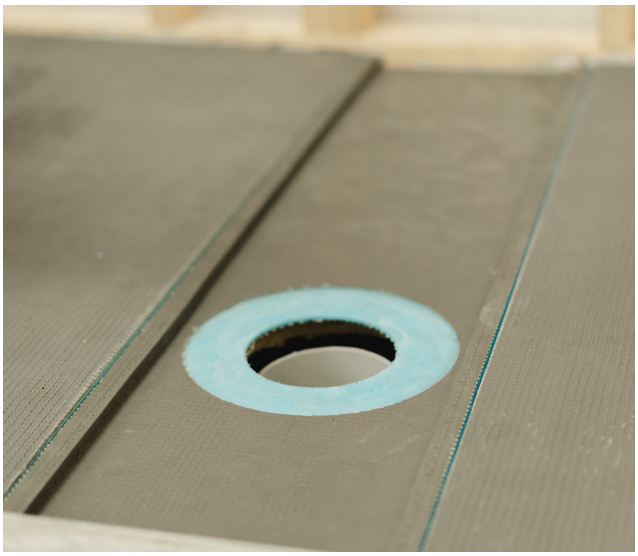
- The Single Slope Panel system is designed to be flexible, accommodating different bathroom sizes and configurations. Whether it's a compact shower recess or a larger wet area, the system can be tailored to fit, ensuring effective water management in any setup.

4. Customisation for Unique Installations:

- Given the diverse nature of bathroom designs, the Single Slope Panel and Linear Support system can be customized to suit specific requirements. This adaptability is particularly useful for unique or unconventional bathroom layouts where standard solutions may not suffice.

5. Seamless Integration with Stile Board System:

- The system is designed to work in harmony with the other components of the Stile Board range, ensuring a cohesive and efficient waterproofing solution. This integration simplifies the installation process and enhances the overall performance of the bathroom's water management system.



The Single Slope Panel and Linear Support system exemplifies innovation in bathroom design, offering a flexible and effective solution for water drainage. Its versatility makes it an ideal choice for a range of applications, ensuring that regardless of the bathroom layout or drain placement, efficient and reliable water management is achieved.

4.7 Marking and Cutting Linear support and Single Slope Panel

To ensure a seamless and effective installation in showers with linear drains, follow these integrated steps for the linear support and Single Slope Panel:

1. Measuring and Cutting Linear Support:

- Determine Linear Support Placement: Start by identifying the precise location for the linear drain and where the linear support will be positioned in relation to this. It should align with the drain and the intended water flow direction.
- Measure for Linear Support: Measure the length needed for the linear support based on the drain's position and the shower's dimensions.
- Cut Linear Support: Cut the linear support to the required length, ensuring a precise fit.

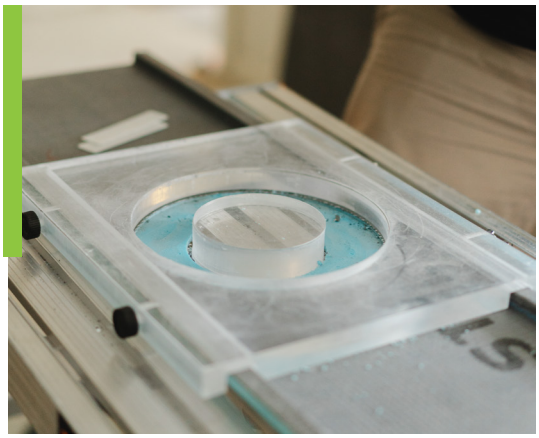
2. Drilling for Drain Alignment:

- Drill Hole for Drain Pipe: Using a 110mm hole saw bit for 100mm wastes or as per the required drain pipe size, drill a hole at the center of the linear support's width, positioned exactly over the drain pipe along the length of the linear drain.
- Check Alignment with Drain Hole: Ensure that the drilled hole aligns precisely with the drain hole. This alignment is crucial for the proper fitting and function of the puddle flange and the drainage system.

3. Routing for Puddle Flange Recess:

- Place Linear Support Jig: Position the linear support jig over the drilled hole's center to guide the router.
- Set Up Router: Equip the router with a ball-bearing bit suitable for template routing. Set the router depth to 21mm to create a recess approximately 4mm from the surface of the linear support, in preparation for the puddle flange.
- Begin Routing: Start routing within the opening of the jig. Carefully follow the template to ensure a consistent and accurate recess.

By accurately measuring, cutting, and fitting the linear support including precise drilling, routing for the puddle flange prior to the Single Slope Panel, you ensure a perfectly installed drainage system that works in harmony with the Single Slope Panel and linear support. This integrated approach guarantees that each component works cohesively for optimal water management in your shower installation.



4. Test Fit Puddle Flange:

- Insert Puddle Flange: Place the puddle flange into the routed recess. It should sit about 1mm lower than the surface of the linear support, allowing space for sealant application later.
- Check Fit with Drain Pipe: Use the flange and drain pipe to guide the positioning of the linear drain during a dry fit. Ensure everything aligns correctly.

5. Mark Position on Substrate:

- Dry Fit and Mark: With the puddle flange in place, dry fit the entire assembly to check the alignment once more. Mark the position on the substrate where the linear support and drain will be installed.

6. Measuring and Marking Single Slope Panel:

- Assess Area for Panel Placement: With the linear support positioned, measure the area that the Single Slope Panel will cover. This includes taking into account the space occupied by the linear support.
- Mark Panel for Cutting: Transfer these measurements onto the Single Slope Panel, marking the areas to be cut to ensure a snug fit around the linear support and within the shower area.
- Important: Always cut the single slope panel from the thicker end. The recessed 21mm thickness must remain intact at the connection with the linear drain. This is crucial for maintaining the correct slope and drainage towards the drain.

7. Cutting and Fitting the Single Slope Panel:

- Cut the Panel: Use a circular saw to cut the Single Slope Panel along the marked lines.
- Test Fit Panel with Support: Place the cut panel in position with the linear support to verify the fit. The panel should slope correctly towards the linear drain and fit snugly with the linear support.
- Router at Floor and Wall Junctions: Similar to the 4-Way Slope Panel installation, use a router along the perimeter where the floor meets the walls, especially where the linear drain meets the wall panels. Set the router to accommodate the thickness of the wall panels plus an additional 1.5mm for clearance, and to a depth of about 10mm.
- Create a Recess for Wall Panels: The recessed area you've routed will serve as a slot for the wall panels to slide into during their installation.

4.8. Installing Single Slope Panel

Successfully installing the Single Slope Panel is crucial for creating an effective and watertight shower system. Follow these steps:

1. Prepare the Area:
- Clean the Substrate: Make sure the installation area is clean, level, and free from debris. This ensures a smooth adhesive application.
- Apply Primer if Needed: If the substrate material requires, apply a primer to enhance the bonding of the adhesive.

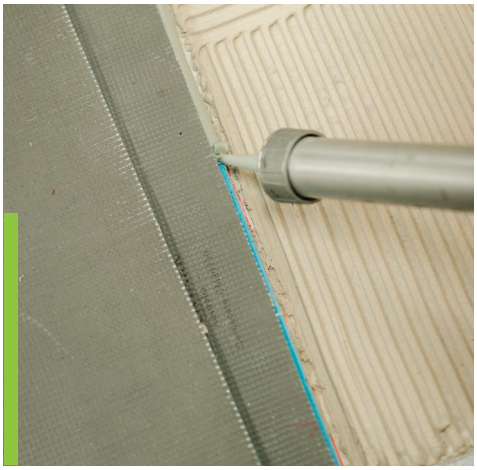
2. Apply Stile Flex Sealant:
- Seal Panel Edges and Junctions: Before installing the panel, apply Stile Flex sealant along the edges where the Single Slope Panel will meet the aluminum angle or water-stop angles. This is critical for ensuring a watertight seal.

3. Install the Single Slope Panel:
- Apply Adhesive: Use a compatible adhesive and apply it evenly on the substrate where the Single Slope Panel will be placed.
- Position the Panel: Lay the Single Slope Panel onto the adhesive, making sure it aligns correctly with the linear support, walls, and the linear drain.
- Press Down Firmly: Ensure solid contact with the adhesive by applying even pressure across the panel.

4. Clean Excess Sealant:
- Remove Overflow: After the panel is in place, clean off any excess sealant. This ensures a neat surface, necessary for any further sealant application and finishing touches.

5. Final Inspection:
- Level and Slope Check: Verify that the panel is level and the slope towards the drain is consistent. This is crucial for effective water drainage.
- Gap Inspection: Examine the installation for any gaps around the panel edges. Seal any gaps as necessary to ensure a watertight installation.

By following these steps, you ensure that the Single Slope Panel is installed properly, contributing to the overall functionality and longevity of your shower system. The precise application of sealant and adhesive, along with thorough cleaning for a neat finish, are key to a successful installation.



4.9 Installing Linear Support and Puddle Flange

After preparing the Single Slope Panel, the next step involves the precise installation of the linear support and puddle flange. This stage is critical for ensuring effective water drainage and maintaining the integrity of your shower system.

1. Install the Linear Support:
- Apply Adhesive Evenly: Spread the adhesive consistently on the substrate where the linear support will be installed to ensure a solid bond.
- Seal recessed edge: Apply Stile Flex Sealant to the recessed edge of the single slope where the linear support will be joined.
- Secure Position: After cutting and dry fitting the linear support as per previous steps, place the linear support in position and press firmly to ensure a secure bond with the adhesive and sealant.

2. Prepare Puddle Flange Installation:
- Apply PVC Primer: Before installing the puddle flange, apply a PVC primer to the flange and allow it to dry completely. This step enhances the adhesion of the PVC adhesive.
- Apply PVC Adhesive and Stile Flex Sealant: Once the primer has dried, apply PVC adhesive to the internal surface of the drain pipe and the outer drainage insert of the puddle flange. Also, apply Stile Flex sealant to the underside of the puddle flange to ensure a consistent and robust seal.

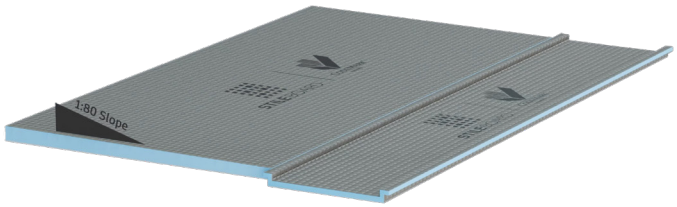
3. Install the Puddle Flange:
- Position and Align: Carefully place the puddle flange into the recess created by the linear support. Ensure it aligns accurately with the drain pipe.
- Secure the Flange: Press down firmly to ensure the flange is securely attached and level with the linear support.

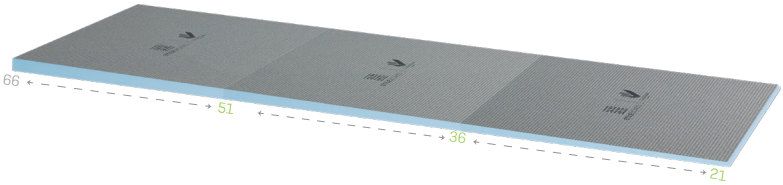
4. Final Checks and Cleaning:
- Inspect Alignment: Verify that the linear support and puddle flange are correctly aligned and level, facilitating effective water drainage.
- Clean Excess Adhesive and Sealant: Remove any overflow of adhesive or sealant to maintain a clean and tidy installation area. This step is important for a neat finish and easier tile application later.

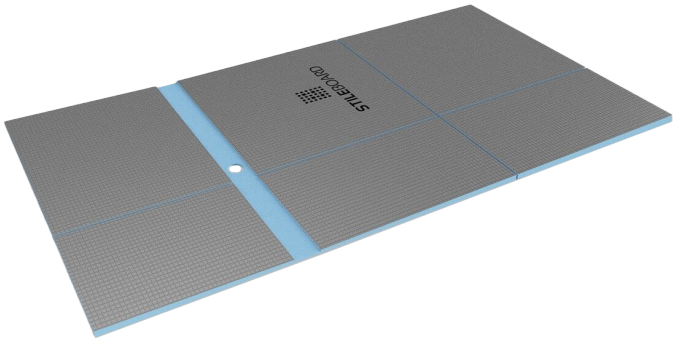
By following these detailed steps, you ensure that the linear support and puddle flange are installed correctly, providing a solid foundation for the efficient functioning of your shower's drainage system. This meticulous approach is key to achieving a watertight, durable, and high-quality shower installation.

4.10 Shower Room Scenario with Single Slope and Extender Panels

When installing Single Slope Panels and Extender Panels in a larger shower room, ensure comprehensive coverage and effective drainage with the following steps:







1. Plan and Measure:

- Evaluate Shower Room Size: Measure the entire area to determine how many Single Slope Panels and Extender Panels are needed.
- Determine Panel Layout: Plan where each panel will be placed, ensuring the setup directs water towards the linear drain.

2. Router Work for Panel Interlocking and Wall Junctions:

- Create Recess for Interlocking: Before fitting, use a router to create a recess along the edges where the Single Slope and Extender Panels will interlock. This allows for a seamless connection between the panels.
- Recess at Wall Junctions: Similarly, create a recess where the panels meet the walls. This will allow for wall panels to fit snugly into the recess, ensuring a flush and seamless installation.

3. Dry Fitting:

- Test Panel and Support Placement: Dry fit the Single Slope Panels, Extender Panels, and Linear Support according to your layout. Confirm that everything aligns correctly and the slope towards the drain is maintained.

4. Install Linear Support:

- Secure Linear Support: Follow the earlier steps to install the linear support, aligning it precisely with the drainage system.

5. Apply Stile Flex Sealant at Interlocks and Edges:

- Seal at Interlocking Points: Apply Stile Flex sealant to the recessed edges where panels interlock and where they meet walls or aluminum angles. This ensures a watertight seal at all critical junctions.

6. Adhere Panels to Substrate:

- Apply Adhesive: Spread a suitable adhesive on the substrate, following the manufacturer's instructions.
- Secure Panels: Place the Single Slope Panels and Extender Panels onto the adhesive. Press down firmly to ensure good contact and adhesion.

7. Final Inspection and Cleanup:

- Check Alignment and Slope: Make sure all panels are correctly aligned and have a consistent slope towards the drain.
- Remove Excess Sealant: Clean off any excess Stile Flex sealant to maintain a neat and professional finish. This step is essential for preparing the surface for any subsequent applications or finishing work.
- Allow Adequate Drying Time: Refrain from walking on the panels until they have fully dried. Adhere to the adhesive manufacturer's recommended drying time to ensure the integrity of the installation.

By methodically installing Single Slope and Extender Panels, and ensuring a seamless interlock at both panel junctions and wall edges, you create a watertight, efficient shower room floor. The use of Stile Flex sealant at critical points further guarantees the integrity and functionality of the entire shower system.

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Step 3:
Wet Area Floor Panels and 4-Way Slope Panel

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5.1 Selecting the Floor Panel and 4-way Slope Panel for your wet area

Choosing the right thickness for floor panels and 4-Way Slope Panels is crucial for ensuring proper water drainage and creating a step-down into the shower recess if required. Follow these guidelines:

1. Determine Step-Down Requirement:

- Assess Shower Recess: Check if there will be a step-down into the shower recess. This is often a design choice or a requirement based on the overall bathroom layout.
- Plan for Elevation Difference: If a step-down is required, plan for the main floor panel to be 10mm higher than the shower recess panel at the angle where they meet. This ensures a smooth transition and effective water containment in the shower area.

2. Choose Floor Panel Thickness:

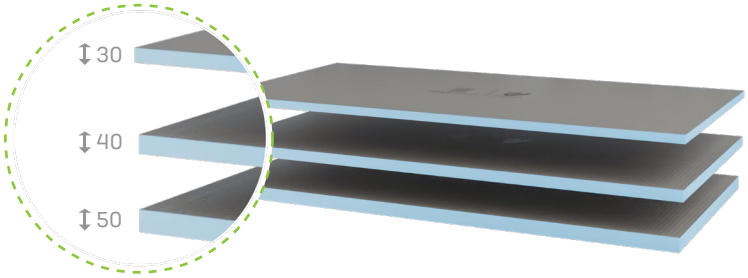
- Available Thicknesses: The floor panels are available in 900x1800 mm size with thickness options of 30mm, 40mm, and 50mm.
- Select Based on Step-Down and Overall Height: Choose a thickness that complements the overall bathroom floor level while accommodating the step-down. For instance, if a 30mm panel is used in the shower recess, consider a 40mm panel for the surrounding floor to achieve the 10mm step-down.

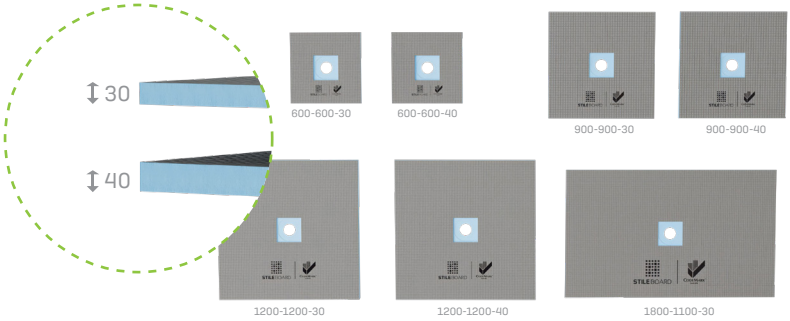
3. Select 4-Way Slope Panel Thickness:

- Available Sizes and Thicknesses: The 4-Way Slope Panels come in sizes of 600x600, 900x900, 1200x1200, and 1100x1800mm, with thickness options of 30mm and 40mm.
- Coordinate with Floor Panels: Ensure the thickness of the 4-Way Slope Panels matches or complements the floor panels, especially if they are adjacent or in close proximity. Consistency in panel thickness helps maintain a uniform slope towards the drain.

4. Finalise Panel Selection:

- Overall Consistency: Aim for a cohesive look and functionality by selecting panel thicknesses that work well together across the entire bathroom area.
- Consider Drainage and Aesthetics: Ensure that the chosen thicknesses not only facilitate proper drainage but also align with the desired aesthetic and practical aspects of your bathroom design.





By carefully selecting the appropriate thickness for both the floor and 4-Way Slope Panels, you ensure a functional, aesthetically pleasing, and safe bathroom environment. This step is crucial for achieving the desired step-down effect and effective water management in the shower area.

5.2 Performing Set-out for Floor Panels and 4-way slope panels

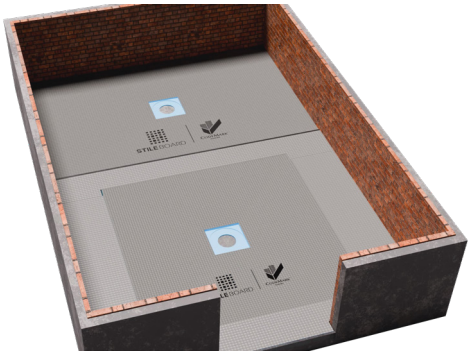
Setting out the floor panels and 4-Way Slope Panels correctly is crucial for a successful installation. This step ensures that the panels are positioned accurately for optimal functional. Follow these guidelines:

1. Measure and Mark the Area:

- Determine Layout: Assess the entire floor area where the panels will be installed. Consider the final layout, including the placement of fixtures and fittings.
- Mark Reference Points: Using a measuring tape and a marker or chalk, mark reference points on the substrate. These marks will guide the placement of the floor and 4-Way Slope Panels.
- Document All Measurements: Keep a detailed record for reference when marking and cutting the panels.

2. Plan for Drainage and Slope:

- Identify Drain Locations: For areas with floor wastes, pinpoint the exact location of each drain.
- Consider Slope for Drainage: Ensure that the layout of the 4-Way Slope Panels facilitates efficient water flow towards the drains. The slope should be consistent and directed appropriately for effective drainage.



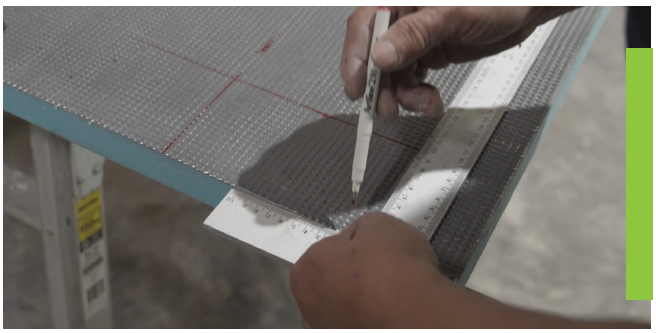
By meticulously performing the set-out for the floor and 4-Way Slope Panels, you ensure a precise foundation for the installation. This step is key to achieving a level floor with efficient water drainage and a visually pleasing layout.

5.3 Measuring and Cutting Floor Panels and 4-way slope panels

To ensure a perfect installation, accurate measurement and cutting are key, along with routing for panel interlocking:

1. Measure the Installation Area:

- Carefully Measure Floor Space: Take precise measurements of the area where the Stile Board panels will be installed, especially around corners, fixtures, and drains.



2. Mark Panels for Cutting:

- Determine Panel Layout: Plan the layout of the floor panels, ensuring proper alignment and slope towards drains.
- Transfer Measurements to Panels: Accurately mark the cutting lines on the Stile Board XPS panels using a straight edge.

3. Cut Panels and create penetrations:

- Choose Appropriate Tool: Utilise either a circular saw or a utility knife for cutting the Stile Board floor panel or 4-way slope panel. The method depends on the size of the cuts and intricacy. A Utility knife is more suited for small detailed cuts and a circular saw is more suited for long straight cuts.
- Make Clean Cuts: Cut along the marked lines. If using a utility knife, score deeply first, then snap along the score line for a clean break.
- Create pipe penetrations: For pipe penetrations, use a hole saw bit attached to a power drill. Select a bit size that matches the diameter of the pipes. Drill holes at the marked locations for the pipes to pass through.

4. Router Work for Seamless Interlocking:

- Create Recesses at Panel Joints: Use a router to form recesses at the joints where floor panels meet each other and where floor panels meet 4-Way Slope Panels.
- Router at Floor and Wall Junctions: Additionally, route a recess along the perimeter where the floor panels will meet the wall. This preparation allows wall panels to interlock seamlessly with the floor, ensuring a cohesive and stable installation.

5. Dry Fit Cut Panels:

- Lay Panels to Check Fit: Place the cut panels on the floor to verify their fit, particularly around the recessed areas.
- Make Adjustments if Needed: Trim or adjust any panels as necessary to ensure a perfect fit and proper slope.

6. Final Preparation:

- Clean Installation Area: Remove any dust or debris resulting from cutting and routing.
- Prepare for Panel Adhesion: Apply a primer if required to enhance the adhesive bonding between the panels and the substrate.

By following these steps, the Stile Board floor panels and 4-way slope will be precisely prepared, cut, and routed for installation. The attention to detail in creating recesses for interlocking ensures a watertight, stable, and aesthetically pleasing finish in your installation.

5.4 Installing 4-Way Slope and Floor Panels

The correct installation of 4-Way Slope and floor panels is essential for a functional and effective shower area. Follow these steps, using the puddle flange as a guide for positioning:

1. Prepare the Installation Area:

- Clean and Level the Substrate: Ensure the substrate is clean, level, and free from debris. This provides a solid foundation for the panels.
- Apply Primer if Required: If necessary, apply a primer to the substrate to enhance the adhesive's bonding ability.

2. Install 4-Way Slope and Floor Panels:

- Identify Drain Location: Place the puddle flange temporarily at the intended drain location. This helps in determining the correct positioning of the 4-Way Slope Panel.
- Apply Adhesive: Spread a compatible adhesive on the substrate where the panels will be installed.
- Lay Panel: Carefully place the 4-Way Slope Panel onto the adhesive.
- Apply Pressure: Press down uniformly on the panels to ensure strong adhesion to the substrate.

3. Seal Joints and Edges:

- Apply Sealant: Use Stile Flex Sealant at all panel joints and where the panels meet the walls to ensure a watertight seal.

4. Install Surrounding Floor Panels:

- Apply Adhesive: Spread a compatible adhesive on the substrate where the floor panels will be installed. Apply extra adhesive if you wish to create minimal falls in surrounding areas.
- - Lay Panels: Install the surrounding floor panels, applying pressure to ensure a strong bond. Simultaneously, apply Stile Flex sealant to all joints where the panels meet other panels and angles.

5. Install puddle flange:

- Follow the steps as shown on page 25. 4.5 – 3

6. Final Inspection:

- Check for Level and Slope: Confirm that the panels are level and maintain a consistent slope towards the drain.
- Inspect Sealant Application: Ensure all sealed areas are free from gaps and fully watertight.

By carefully installing the 4-Way Slope and floor panels, and ensuring proper alignment and sealing, you create a stable and effective base for your shower area. The correct positioning of the 4-Way Slope Panel, guided by the puddle flange, is key to effective water management.

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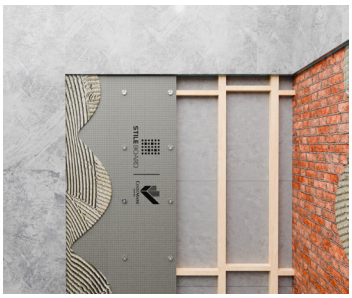
Step 4:
Wall Panels

6.1 Selecting the Right Panel Thickness for Wall Type

Stile Board wall panels, known for their waterproof, lightweight, and thermal performance properties, are ideal for both solid and framed wall constructions in wet-room environments. Here's how to select the right thickness:

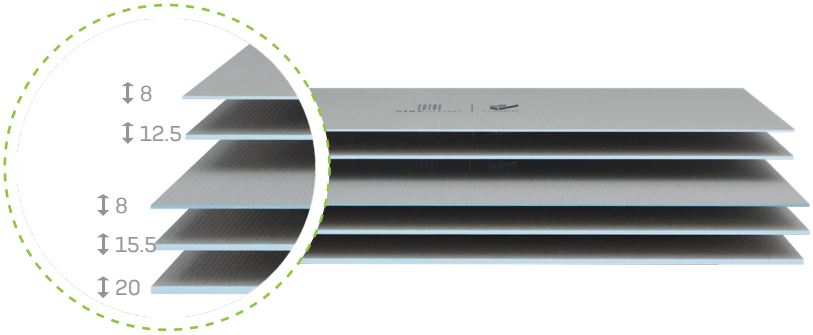
1. Consider Wall Construction:

- Solid Walls (Concrete/Brick/Block): For solid wall constructions, Stile Board panels can be directly adhered. No additional preparation is needed other than ensuring walls are clean and free from obstructions.
- Framed Walls (Timber/Metal): Ensure that the framework is level and built to Australian Standards (AS), with spacing at 450- or 600-mm.. Stile Board panels can be installed directly onto these frameworks.



2. Determine Panel Thickness:

- Available Thicknesses: Stile Board wall panels come in two standard sizes of 1200x2400 mm at 15.5mm and 20mm thicknesses and 900x2400 mm at 8mm and 12.5mm thicknesses.
- Select Based on Wall Type and Requirements:
  - For solid walls, choose a thickness that provides the best balance of insulation and ease of installation. If the wall is quite level the 8mm thick panel can be utilised with the trowel on method. If the wall is uneven, we recommend using a thicker panel in any of the available wall panels.
  - For framed walls, consider the thickness in relation to the depth of the frame and the type of finish desired. For 450mm stud centres a 12.5mm thickness will be suitable and for a 600mm stud centre the 15.5mm thickness is required as a minimum.



By selecting the appropriate thickness of Stile Board panels based on your wall type, and following these preparation guidelines, you ensure a successful installation that leverages the panels' waterproof and insulative properties.

6.2 Measuring and Cutting Wall Panels (Incorporating Pipe Penetrations)

Accurately measuring, cutting, and preparing Stile Board wall panels, including drilling for pipe penetrations, are essential steps for a successful installation. Here's the process with added details on using hole saws:

1. Measure the Wall Area:

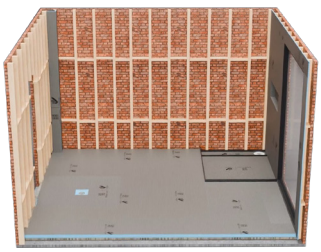
- Assess Wall Dimensions: Take comprehensive measurements of the wall area where panels will be installed, considering all features and fixtures.
- Document Measurements: Keep a record of all measurements for reference during the cutting process.

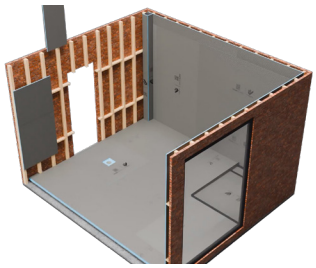
2. Plan Panel Layout:

- Determine Panel Placement: Plan the layout of the Stile Board panels, optimizing for minimal wastage and aesthetic alignment.

3. Mark and Drill Pipe Penetrations:

- Identify Pipe Locations: Before cutting, locate and mark the positions of all pipes on the wall.
- Transfer Pipe Locations to Panels: Accurately transfer these pipe locations onto the panel where they will align once installed. This ensures that screws do not penetrate any pipes during installation.
- Use Hole Saws for Drilling: Select hole saws of appropriate diameters for the pipes. Drill holes at the marked pipe locations on the panels, ensuring clean and precise cuts for pipe penetrations.





4. Cutting the Panels:

- Mark Cut Lines: Transfer measurements onto the panels, marking clearly with a straight edge or ruler.
- Choose the Right Tools: Depending on the panel thickness and cut complexity, use suitable tools like a circular saw or utility knife.
- Execute Precise Cuts: Carefully cut along the marked lines, ensuring accuracy for a seamless fit.

5. Dry Fit Cut Panels:

- Test Panel Placement: Dry fit the panels against the wall to check their fit, aligning the drilled holes with the pipes.
- Make Necessary Adjustments: If further trimming is needed for a perfect fit, especially around the pipe penetrations, adjust and re-cut as necessary.

6. Final Preparations:

- Clean After Cutting and Drilling: Clear away any debris or dust from the panels and the work area.
- Prepare Panels for Installation: Ensure the panels, including the areas around the pipe penetrations, are ready for installation.

By meticulously measuring, marking, cutting, and preparing the Stile Board wall panels, including drilling precise holes for pipe penetrations, you ensure a safe and accurate installation. This attention to detail is vital for the functional and aesthetic integrity of the wall paneling in your project.

6.3 Installing wall panels to stud frame

Installing Stile Board wall panels onto a stud frame requires specific methods to ensure a strong, watertight finish. Here's the updated process:

1. Select Appropriate Panel Size and Thickness:

- For 450mm Stud Centres: Use 900x2400x12.5mm wall panels. These are suitable for frames with studs spaced at 450mm intervals.
- For 600mm Stud Centres: Opt for 1200x2400x15.5mm wall panels. This thickness is the minimum requirement for frames with 600mm stud spacing.

2. Prepare the Stud Frame:

- Ensure Level and Secure Framework: Confirm that the stud frame is built sturdily, level, and plumb. The frame should be compliant with relevant standards.
- Finish Panels at Studs: Panels must be cut or arranged so that their edges finish at a stud. Avoid overhanging panels beyond the studs.

3. Install the Panels:

- Apply Stile Flex Sealant for Waterproofing: Before placing the panels, apply Stile Flex sealant to all critical waterproof areas such as the perimeter of the floor-to-wall, wall-to-wall edges in shower recesses/skirtings (200mm high), and around baths and vanities. This creates a waterproof 'sandwich' effect between the panels.
- Position and Align Panels: Carefully place the Stile Board wall panels against the stud frame, ensuring they are aligned correctly with the layout plan.

4. Secure Panels with Special Fasteners:

- Use Stile Board Washers and Galvanised Screws: Secure the panels using the special Stile Board washers and galvanised screws. This ensures a strong hold and compatibility with the panel material.
- Screw Placement: Place screws no more than 300mm apart. Ensure even distribution for consistent support.

5. Check Alignment and Sealant Application:

- Ensure Level Installation: As you install each panel, check that they are level and properly aligned.
- Apply Additional Sealant if Needed: Apply more Stile Flex sealant to any joints or edges as necessary during the installation process to maintain waterproof integrity.

6. Clean Excess Sealant After Installation:

- Remove Overflowing Sealant: Once each panel is installed and secured, inspect for any excess Stile Flex sealant that may have oozed out during the installation process.
- Clean for a Smooth Surface: Use a suitable tool to carefully remove any excess sealant. This step is essential to ensure a clean and smooth surface on the walls. A neat surface is crucial for the effectiveness of the final sealant application and the overall aesthetic of the finished walls.
- Prevent Sealant Build-up: Pay special attention to corners and edges where sealant build-up can occur. Keeping these areas clean and free from excess material will ensure a more professional finish.

7. Final Inspection and Specifications:

- Ensure there is no excess deflection and that the panels are secured with an adequate number of screw fixings.
- Inspect for Complete Coverage: Confirm that all panels are correctly installed, and all waterproofing sealant areas are thoroughly covered.

By adhering to these specific installation guidelines, including using the right panel size and thickness, applying waterproofing sealant effectively, and securing the panels with appropriate fasteners, you ensure a robust and watertight installation of Stile Board wall panels on a stud frame.

6.4 Installing wall panels to brick/block walls

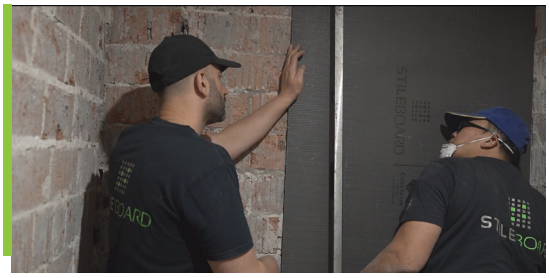
Installing Stile Board wall panels on brick or block walls with an optional render finish requires careful planning and execution. Here's how to proceed:

1. Optional Render Finish for Walls:

- Applying Stile Board to a Render Finish: While not mandatory, applying Stile Board to a render finish on brick or block walls can enhance the installation process. A render finish provides a uniform surface, allowing for the use of thinner 8mm panels.
- Wall Condition Assessment: Whether applying to raw brick/block or a render finish, ensure the wall is structurally sound, clean, and free of debris.

2. Plan and Set Out Panel Placement:

- Evaluate Wall and Panel Layout:
  - Wall Condition Assessment: Ensure the brick or block wall is structurally sound and free from debris. A perfectly level surface is not necessary, as the installation method accommodates minor unevenness.
  - Choose Panel Orientation: Decide whether to install the panels horizontally or vertically, based on minimising joints and achieving the best layout.
  - Marking Panel Positions: Accurately mark where each panel will be placed using a guiding rule to ensure proper alignment.



3. Measuring and Wall Panels and Pipe Penetrations

Accurately measuring and preparing Stile Board wall panels, pipe penetrations, are essential steps for a successful installation. Here's the process with added details on using hole saws:

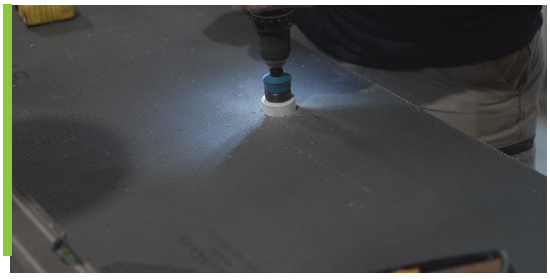
- Measure the Wall Area:
  - Assess Wall Dimensions: Take comprehensive measurements of the wall area where panels will be installed, considering all features and fixtures.
  - Document Measurements: Keep a record of all measurements for reference during the cutting process.

4. Cutting the Panels:

- Choose the Right Tools: Depending on the panel thickness and cut complexity, use suitable tools like a circular saw or utility knife.
- Execute Precise Cuts: Carefully cut along the marked lines, ensuring accuracy and a clean cut for a seamless fit.

5. Mark and Drill Pipe Penetrations:

- Identify Pipe Locations: Before cutting, locate and mark the positions of all pipes on the wall.
- Transfer Pipe Locations to Panels: Accurately transfer these pipe locations onto the panel where they will align once installed. This ensures that screws do not penetrate any pipes during installation.
- Use Hole Saws for Drilling: Select hole saws of appropriate diameters for the pipes. Drill holes at the marked pipe locations on the panels, ensuring clean and precise cuts for pipe penetrations.



6. Dry Fit Cut Panels:

- Test Panel Placement: Dry fit the panels against the wall to check their fit, aligning the drilled holes with the pipes.
- Make Necessary Adjustments: If further trimming is needed for a perfect fit, especially around the pipe penetrations, adjust and re-cut as necessary.

7. Adhesive Application:

- Spot Fixing Flexibility: Apply the specified Stile Board adhesive (C2 Class) in spots on either the wall or the panels. This method provides more flexibility in aligning and leveling the panels during installation.
- Use Notched Trowel for Even Walls: If the wall is relatively level and even, you can apply the adhesive with a notched trowel, either directly onto the wall or onto the panel.

8. Install the Panels:

- Apply Stile Flex Sealant for Waterproofing: Before placing the panels, apply Stile Flex sealant to all critical waterproof areas such as the perimeter of the floor-to-wall, wall-to-wall edges in shower recesses/skirting (200mm high vertical joints), and around baths and vanities. This creates a waterproof 'sandwich' effect between the panels.
- Align and Level Panels: Place the panels on the wall, using a level to adjust and ensure each panel is properly aligned. The choice of horizontal or vertical installation should guide how the panels are aligned and secured.
- Secure and Press for Adhesion: Firmly press the panels against the wall to ensure strong contact with the adhesive, whether spot-fixed or spread.

9. Clean and Inspect Final Installation:

- Check Panel Alignment: Ensure all panels are correctly aligned and the adhesive and sealant are applied thoroughly.
- Remove Excess Sealant: Clean off any sealant overflow for a neat finish

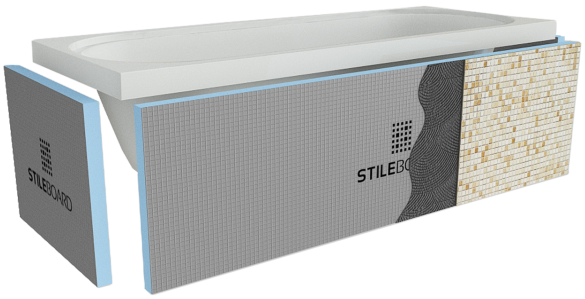
10. Secure Panels with mechanical fixing:

- Anchoring with Mechanical fixing: Secure the panels using mechanical fixing placed every 600mm and 10 to 20mm from the panel edges. Use a masonry drill to pre drill then hammer in the mechanical fixing.

By following these steps, Stile Board wall panels will be installed correctly onto brick or block walls, ensuring a strong bond and a visually appealing finish. The flexible adhesive method allows for accurate leveling and alignment of panels, accommodating the wall's existing conditions.

6.5 Framing for Baths, and Downpipes

Stile Board offers a convenient and efficient solution for framing bathtubs or enclosing downpipes, simplifying the process and eliminating the need for traditional timber framing or additional trades.



1. Advantages of Using Stile Board for Framing:

- Streamlined Installation: The lightweight and easy-to-manipulate nature of Stile Board makes the framing process straightforward, accessible without requiring specialised framing skills.
- Customisation and Flexibility: Easily cut and shape Stile Board panels to fit any design for bath framing or downpipe enclosures.

2. Panel Selection and Preparation:

- Thickness Options: Choose from 50mm or 40mm thick panels, sized at 900x1800mm, based on project requirements.
- Tailor to Fit: Cut and adjust the panels to the required dimensions and shapes for your specific framing task.

3. Panel Installation for Bath Frame or Downpipe Enclosure:

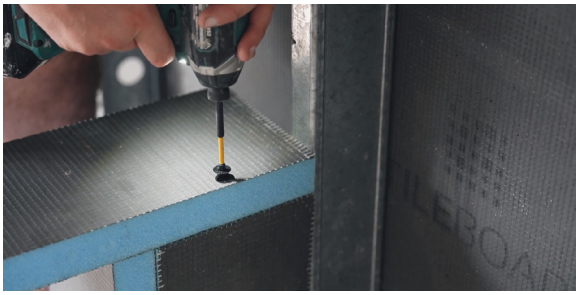
- Direct Installation on Floor System: Unlike wall and floor junctions, the panels for bath framing or downpipe enclosure can be installed directly on top of the Stile Board floor panel system without the need to router the edges.
- Optional Recess for Enhanced Fit: While not mandatory, routing the edge to create a recess in the floor for accommodating the panel can improve the installation. This step ensures a more seamless and secure fit.
- Apply Stile Board Sealant/Adhesive: Apply the specified Stile Board sealant/adhesive evenly across the edge designated for placement on the floor. Ensure enough coverage for a strong bond.
- Apply the Stile Flex at the edges where the Stile board panels meet.
- Firmly Position the Panel: Press the panel firmly into its position on the floor, ensuring it aligns correctly with the framing or enclosure area.
- fix the specified Stile board scew fixing at the joints for additional bonding strength.

4. Leveling and Adjusting Panels:

- Use of Packers for Leveling: Utilize packers to adjust the level of the panels if required. This method provides a practical way to ensure the panels are perfectly level and stable.

5. Sealing Joints

- Seal All Junctions: Apply Stile Flex sealant along panel junctions for a watertight seal.



6. Efficiency Without Additional Trades:

- Eliminate Need for Timber Framing: The use of Stile Board for framing and enclosures negates the need for complex timber constructions and additional trade involvement.

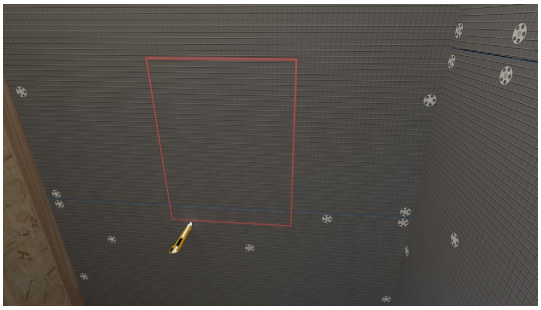
7. Final Inspection:

- Ensure Watertight Installation: Verify that all joints are well-sealed and the structure is watertight.

By using Stile Board for framing bathtubs or enclosing downpipes, you benefit from an easier, more efficient process, with the flexibility of packers for precise leveling adjustments, enhancing the overall installation quality.

6.6. Installation of a Niche in a Stile Board Wall

Installing a niche within a Stile Board wall involves careful planning and precise execution. Follow these steps for a successful installation:

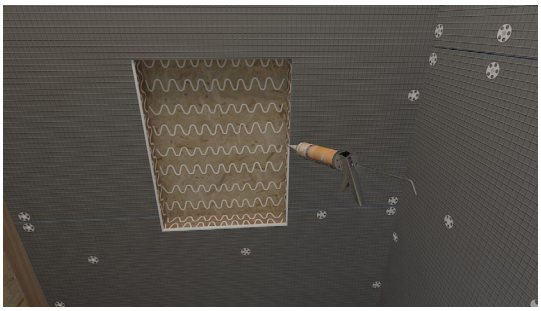


1. Pre planning

- Ensure that the timber frame or cavity can accommodate the placement of the Stile Board Niche box before proceeding to the next steps.

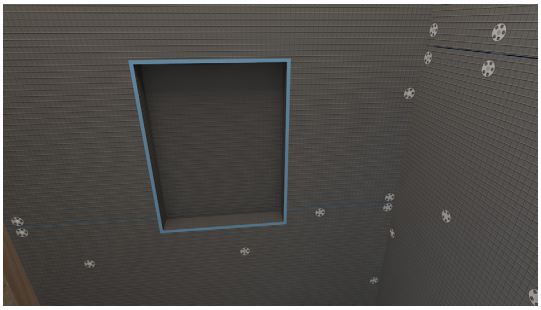
2. Marking the Niche Area:

- Determine Niche Height: Decide on the desired height for the niche.
- Draw Reference Lines: Using a level, mark the outline of the niche on the XPS board, spanning the width and length of the cut-out area. Ensure lines are straight and level for each side of the niche.



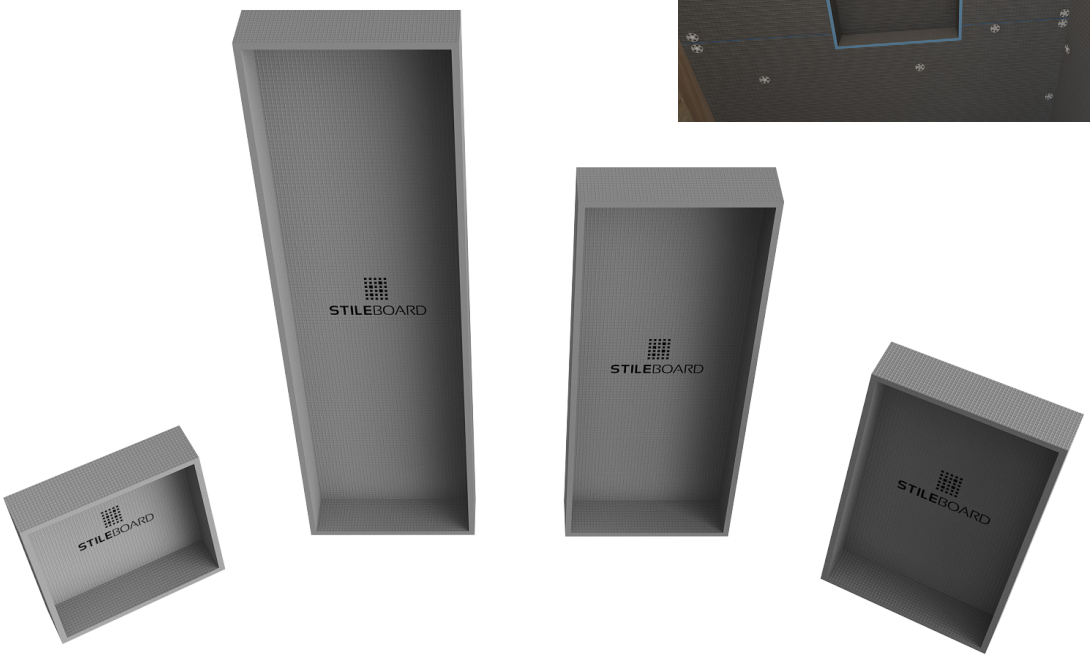
3. Cutting Out the Niche:

- Use a Knife for Cutting: Carefully cut along the marked lines with a sharp knife to create the opening for the niche, ensuring clean and straight cuts.
- Expose Framework or Cavity: Remove the cut-out section to expose the underlying framework (in timber/metal frame walls) or cavity (in concrete/brick walls).



3. Installing the Niche:

- Adhere with Stile Flex Adhesive Sealant: Apply Stile Flex Adhesive sealant to attach the Stile Board Niche securely to the studs or into the cavity.
- Ensure Firm Placement: Position the niche into the cut-out, pressing firmly to ensure it adheres well to the sealant.



Important Note:

- Wall Alterations: Any modifications to walls (concrete, brick, besser block, timber, or metal frame) should be determined on-site by the user and completed as per the requirements of the Building Code.
- Guideline Limitations: Stile Board does not provide specific guidelines for structural alterations. Ensure compliance with building regulations and, if necessary, consult a professional for structural modifications.

By following these instructions, you can integrate a Stile Board niche into your wall, ensuring a seamless look and a waterproof finish that is ready for tiling.

Step 5: Sealing & Waterproofing Joints

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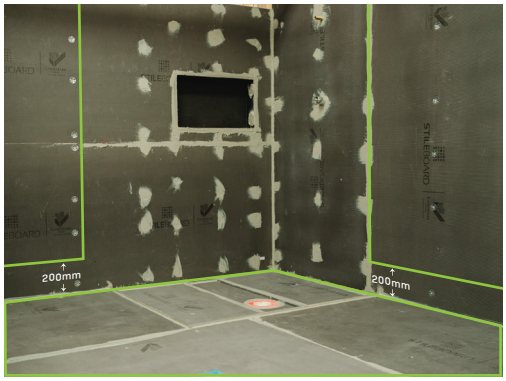
7.1. Stile Flex Sealant Application for Critical Waterproof Areas

Applying finish Stile Flex sealant in a Stile Board wet-room installation must be done with precision, using the right tools for a seamless and effective waterproof seal.



1. Identify Critical Areas:

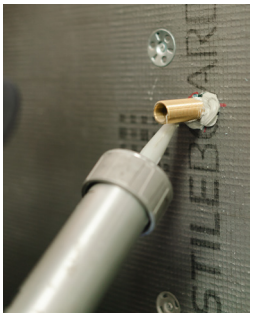
- Assess Joints and Edges: Identify all areas where water exposure is likely. Start with the wall areas to ensure a clean and smooth working environment.
- Prepare Surfaces: Ensure that all identified areas are clean and dry before applying the sealant.
- Focus on the following critical points:
- * Floor-to-Floor joints
- * Floor-to-Wall joints
- * Wall-to-Wall joints in shower recesses, around vanities, baths, and skirtings
- (including 200mm vertical skirtings and 200mm beyond the shower recess)
- * Floor-to-Drain supports
- * Flor-to-Alumnium Water-stop angles
- * Wall-to-Niche Boxes
- * All plumbing penetrations
- * All screw or mechanical fixings in the identified areas

2. Sealant application:

- Cut the nozzle of the sealant gun to allow for a 6mm diameter bead, ensuring an appropriate thickness for an even spread. Apply the sealant along all the identified joints.

3. Tooling Sealant at Critical Areas:

- After applying the Stile Flex Sealant to all the critical waterproof areas, use a plastic flat or corner scraper to neatly tool the sealant into these areas. press firmly to spread the sealant along the joints. The spread width should be approximately 10-15mm on either side of the joints.
- Sealant at Aluminium Angles: Where Stile Board meets aluminium angles, use tape to protect the exposed edge of the alumnium angle and a plastic flat scraper to evenly spread and smooth out the sealant, ensuring a watertight bond.



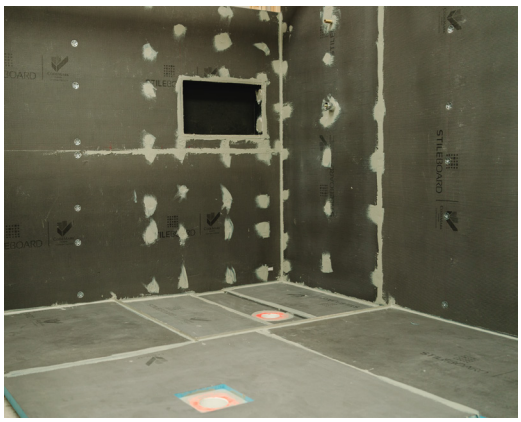
4. Even Distribution Over Fixings:

- Covering Screw and Washer Penetrations: For each screw and washer penetration, apply sealant and then use a plastic flat scraper to evenly disperse it, completely covering all fixings. This step is crucial to prevent water infiltration through these points.

5. Final Inspection and Curing Process:

- Careful Inspection for Complete Coverage: After tooling the sealant, inspect all treated areas to ensure there are no gaps or missed spots. The sealant should be smoothly integrated into the surface for a seamless finish.
- Allow Adequate Time for Drying: Follow the manufacturer's guidelines for the curing time of the Stile Flex sealant, ensuring it is fully set before the area is exposed to water or further finishing work.

By using the appropriate tools like plastic flat and corner scrapers for applying and smoothing out the Stile Flex sealant, you achieve an effective and professional-looking waterproof seal. This meticulous application is key to the success and longevity of your Stile Board wet-room installation.



7.2. Applying Fiberglass Mesh to Joints

Integrating fiberglass mesh tape into the sealing process of Stile Board installations is vital for reinforcing the joints in critical waterproof areas, except for the internal corners. Here's the updated method:

1. Prepare Joints for Mesh Tape Application:

- Identify Critical Waterproof Areas: Focus on all critical areas that have been sealed with Stile Flex Sealant, such as where wall and floor panels meet, around niches, and at the base of fixtures. Exclude internal corners from this process.
- Ensure Clean and Dry Surfaces: Before applying the mesh tape, make sure the sealed joints are clean, dry, and free from any debris.

2. Measure and Apply Fiberglass Mesh Tape:

- Cut to Required Lengths: Measure and cut the fiberglass mesh tape to fit precisely over the sealed joints.
- Press Tape onto Sealant: Carefully place the mesh tape over the sealant in the joints. Ensure the tape is centered over the joint and press it firmly onto the sealant. The tape should stick to the sealant but not be covered by an additional layer of it.

3. Ensure Proper Adhesion:

- Smooth Out Tape: Use a spatula or a similar tool to gently press the mesh tape into the sealant, ensuring it adheres well and lies flat against the surface without any wrinkles or air pockets.

4. Final Inspection:

- Check Coverage: Ensure the mesh tape covers the entire length of each sealed joint and that it is properly adhered to the sealant underneath.
- Verify Smoothness: The tape should be smoothly integrated into the sealed joint, maintaining a flat and even surface.

By applying fiberglass mesh tape correctly to the sealed joints in critical waterproof areas, you reinforce the overall waterproofing effectiveness of the Stile Board installation. This step enhances the durability and integrity of the joints, ensuring a long-lasting, leak-free finish.

7.3. Stile Fusion Waterproof Membrane Application

The application of a waterproof membrane is crucial for reinforcing the waterproofing in critical areas of Stile Board installations. This step involves applying a Stile Fusion specified Stile Board cementitious membrane over sealant joints and fiberglass mesh. Here's the correct procedure:

1. Prepare the Critical Waterproof Areas:

- Ensure Proper Curing: Before applying the membrane, check that all sealant joints and areas where fiberglass mesh has been applied are fully cured.
- Clean Surface: Confirm that these areas are clean and free from any dust or debris.

2. Using Stile Fusion - Stile Board Cementitious Membrane:

- Select the Right Product: Use the specified Stile Board cementitious membrane, Stile Fusion, designed for compatibility and optimal performance with Stile Board installations. Stile Fusion is a continuation of the same material as the board, using modified polymer mortar. This ensures a seamless bond between the Stile Board coating and the membrane over the water-resistant substrate (XPS).
- Read Manufacturer's Guidelines: Familiarise yourself with the application instructions for the cementitious membrane, including mixing, consistency, and drying times.

3. Application Process:

- Focus on Sealed Joints and Mesh Areas: Apply the cementitious membrane over the sealant joints and areas where fiberglass mesh has been used.
- Use Appropriate Tools: Employ a brush or roller for precise application. Ensure that the membrane covers the sealant and mesh completely, forming a continuous waterproof layer with an overlap of approx. 50mm.

4. Ensure Complete and Even Coverage:

- Apply as Directed: Follow the product guidelines for application thickness. Apply multiple coats if necessary, allowing adequate drying time between coats as specified by the manufacturer.
- Coverage Check: After application, inspect the area to ensure complete and even coverage over all critical waterproof areas.

5. Drying and Curing:

- Allow Adequate Drying Time: Let the membrane dry as per the manufacturer's instructions. The area should remain undisturbed during this time to ensure effective curing.

By carefully applying the Stile Board cementitious membrane over critical waterproof areas, you reinforce the overall waterproofing effectiveness of your installation. This targeted application ensures a robust and long-lasting waterproof barrier in the most vulnerable areas of your wet-room.

Inspections and Flood Testing

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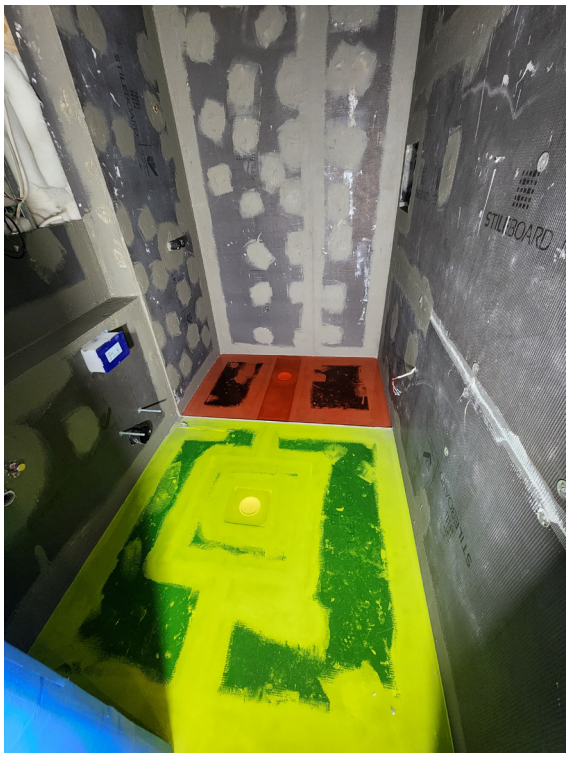
Inspections and Flood Testing

8.1 Inspection of joints and damage

Periodically inspect the installation for any signs of wear, damage, or deterioration. Check the sealants, joints, and waterproofing membrane for integrity. Address any issues promptly to prevent further damage.

8.2 Flood testing

After 48 hours of curing, block the drain pipes with the caps provided with the puddle flanges. Mix the water with dye in a bucket, using different colors for different areas (e.g., one color in the shower and another in the wet area). This will help identify any leaks between the two areas. Flood the areas and leave them for 48 hours to detect any leaks. Inspect the areas underneath and the surrounding rooms for any signs of leakage.



9

Additional Tips and Recommendations

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Additional Tips and Recommendations

9.1.Tiling considerations

Surface Preparation: Ensure the Stile Boards are clean, dry, and free of dust or debris before tiling. This provides a better bonding surface for the tile adhesive.

Adhesive Selection: Use any specified high-quality C2 Class, flexible tile adhesive compatible with the Stile Board system. This ensures a strong bond and accommodates any movement within the substrate.

9.2 Expansion and Contraction Considerations

Expansion Joints: Include expansion joints around the perimeter of the tiled area and at intervals according to the size of the installation. This accommodates any movement due to temperature changes or substrate expansion and contraction.

Sealant: Use a high-quality, flexible sealant in expansion joints and around the edges of the tiled area to maintain a watertight seal while allowing for movement.

Temperature Fluctuations: Be aware of the potential for expansion and contraction in areas subject to significant temperature changes, such as outdoor installations or areas with underfloor heating.

9.3 Repair and Replacement

Minor Repairs: For small damages or cracks in the Stile Board, use a compatible filler or repair compound.

Panel Replacement: If a Stile Board panel needs to be replaced, carefully remove the surrounding tiles and unscrew the panel. Install a new panel using the same adhesive and mechanical fixing process, ensuring a secure fit and proper sealing of all joints.

Regular Inspections: Periodically inspect tiled areas for signs of damage or wear, particularly in high-use or wet areas. Promptly address any issues to prevent further damage and maintain the integrity of the installation.

By following these additional tips and recommendations, you can ensure a high-quality, durable installation that will stand the test of time.

Warranty

Stile Board Pty Ltd (ACN 6376 350 022) of 31 Stoddart Road, Prospect NSW 2148 (hereinafter known as **the Company**) provides a Lifetime Warranty (**the Warranty**) as the official distributor of the Waterproof Tile Backer Board System, which is more particularly specified in the attached schedule (**the System**).

1. This Warranty provided by the Company is subject to the following conditions: -

    i. The Warranty is exclusively provided to the original purchaser of the System from a retailer authorised by the Company, and is not transferrable to another party.
    ii. The original purchaser provides proof of purchase of the System to the Company.
    iii. The Warranty specifically excludes parts that experience normal wear and tear, such as washers, screws and moisture barriers.
    iv. The design of the installation of the System and associated materials was compliant with the Design and Building Practitioners Act 2020 (NSW), the Building Code of Australia (BCA), and all other relevant laws and regulations at the time of installation.
    v. The installation was in compliance with all approvals by the appropriate authorities.
    vi. The installation of the System was completed by a Stile Board Certified installer (the Installer).
    vii. The Installer strictly complied with the installation manual provided by the Company when installing the System, and did not deviate from the techniques and directions contained in the installation manual.
    viii. The Installer used all appropriate tools and materials when installing the System.
    ix. The System was not altered in any way during the installation.
    x. The Installer successfully completed the Stile Board Inspection Test Plan ('ITP').
    xi. The installation is complete and full payment for the installation has been made.
    xii. The System was not used beyond its designated function, contrary to the user manual or guidelines, or subject to unauthorised repairs or modifications.
    xiii. The System was not physically damaged, mishandled or interfered with following installation, whether deliberately or accidently, including by way of puncturing, exposure to chemicals, extreme heat or cold, substrate movement or otherwise.

2. The Company's liability under the Warranty is limited to the materials required for the installation of a replacement System. The Warranty specifically excludes costs related to the actual removal of the System and installation of the System such as labour and any related or consequential loss or damage such as associated structural or non-structural building work and loss of income and convenience.
3. To make a claim pursuant to the warranty, the claimant must notify the Company in writing within twenty-eight (28) days of first becoming aware of the basis for the claim, such as a defect or failure beyond the accepted industry norm.
4. The Company will facilitate an inspection of the System through the retailer to assess the claim. Access for the inspection must be provided during regular business hours.
5. If the Company accepts liability pursuant to the Warranty, the Company will arrange replacement of the System through the retailer. Access to the property in which the System is installed must be provided as requested by the retailer between 7am and 5pm on weekdays for as long as it takes to complete the required work. Any such work may utilise a System and materials different from the System and materials originally used, and the Company does not accept any liability in this regard.
6. This Warranty is governed by the jurisdiction of the State of New South Wales, Australia.
7. This warranty is in addition to any statutory rights, such as pursuant to the Australian Consumer Law, and should in no way be interpreted as excluding or restricting any such rights that may be applicable such as a refund, replacement, compensation or repair.

Frequently Asked Questions

1. What is the Stile Board system?
The Stile Board system is a waterproof tile backer board made from an extruded polystyrene (XPS) core coated with a modified polymer mortar on both sides. It is designed for use in bathroom construction and is backed by industry experts and a CodeMark certification.

2. What are the benefits of using the Stile Board system?
- 100% Waterproof: Ideal for wet areas like bathrooms and kitchens.
- Superior Strength: Reinforced with fiberglass mesh for added durability.
- Excellent Insulation: Provides thermal insulation benefits.
- Versatility: Suitable for walls, floors, and structural elements.
- Ease of Installation: Lightweight and easy to cut and handle.
- Time-Saving: Reduces bathroom renovation time by up to two weeks.
- Comprehensive Warranty: Lifetime warranty when installed by certified installers.

3. What additional benefits does the XPS core provide?
- Thermal Insulation: Helps maintain comfortable indoor temperatures and reduces energy consumption for heating and cooling.
- Moisture Resistance: Completely unaffected by water, preventing rot, mold, and mildew.
- Dimensional Stability: Maintains its shape over time with minimal expansion or contraction through different seasons.
- Eco-Friendly: The XPS core material can be recycled and reused, contributing to sustainability efforts.
- Insect Resistance: Resistant to insect infestation, ensuring long-term durability.

4. How does the Stile Board system compare to traditional bathroom construction methods?
The Stile Board system streamlines the bathroom construction process by replacing multiple traditional steps with a single, efficient installation. Traditional methods often involve:
- Sheeting walls with CFC or rendering walls: This is replaced by directly installing Stile Board.
- Waterproofing onto the substrate: The Stile Board is inherently waterproof, eliminating this step.
- Screeding with sand and cement: The Stile Board provides a pre-fabricated fall gradient, removing the need for traditional screeding.
- Waterproofing above the screed: The Stile Board's waterproof nature means this step is unnecessary.
By using Stile Board, you can save 10-14 days on bathroom construction or renovation, significantly reducing labor time and costs.

5. How is the Stile Board system different from other tile backer board suppliers?
The Stile Board system stands out due to several unique features:
- Patented Slope and Drain Support Shower System: This innovative design provides flexibility for different drain locations, ensuring efficient water management and easy customization of shower designs.
- Superior Material Composition: The XPS core with a modified polymer mortar coating offers excellent waterproofing, strength, and insulation.
- Comprehensive Testing and Certification: The Stile Board is CodeMark certified and undergoes continuous R&D testing to meet and exceed industry standards.

6. What applications is the Stile Board system suitable for?
The Stile Board system is perfect for residential and commercial bathroom renovations, including Class 2-9 buildings. Although it has not yet been approved or tested for other areas, we are continuously testing to expand its use into applications such as balconies and other wet-prone areas.

7. How do I install the Stile Board system?
Installation guidelines are provided with each purchase. The system is designed for quick and efficient installation, significantly reducing renovation time. For optimal results and to retain the lifetime warranty, it is recommended to use certified installers.

7. Are certified installers available for the Stile Board system?
Yes, we have certified installers who have undergone comprehensive training in Stile Board installation. Using a certified installer ensures proper installation and maintains the product's lifetime warranty. A list of certified installers can be found on our website.

9. What warranty is provided with the Stile Board system?
The Stile Board system comes with a comprehensive lifetime warranty when installed by certified installers. Detailed warranty information is included with the product documentation.

10. Is the Stile Board system compliant with Australian standards?
Yes, the Stile Board system is CodeMark certified and fully compliant with the Building Code of Australia, ensuring it meets all relevant standards for safety and performance.

11. What makes the Stile Board system different from other products?
The Stile Board system is innovative, offering a unique combination of waterproofing, strength, insulation, and ease of installation. Its XPS core and modified polymer mortar coating provide superior performance, and the product undergoes continuous R&D testing for further improvements and new applications.

12. How can I ensure the Stile Board system performs optimally after installation?
Following the provided installation guidelines and using certified installers will ensure optimal performance. Regular inspections and maintenance can help extend the product's lifespan and maintain its performance.

13. Can the Stile Board system be used for applications other than bathrooms?
Currently, the Stile Board system is approved and tested for use in bathrooms. However, we are continuously testing to expand its applications into areas such as balconies and other wet-prone areas.

14. Where can I find more information or support for the Stile Board system?
For more information or support, you can visit our website, where you can access detailed product specifications, technical data sheets, and an easy estimating tool. You can also contact our customer service team or connect with our industry partners listed on our website.

Contact Information

12.1 Technical Support

At Stile Board, we are committed to providing comprehensive technical support to ensure the successful installation and performance of our products. Our team of experts is available to assist you with any technical inquiries, installation challenges, or product-related questions you may have.

Technical Support Services Include:
- Detailed guidance on Stile Board installation procedures.
- Assistance with troubleshooting and resolving technical issues.
- Expert advice on best practices for optimal performance.
- Support for compliance with relevant building codes and standards.
- Continuous updates on the latest product enhancements and innovations.

Contact Technical Support:
Phone: 02 9688 1002
Email: support@stileboard.com.au
Hours: Monday to Friday, 9:00 AM to 5:00 PM (AEST)

12.2 Customer Support

Our customer support team is dedicated to providing you with exceptional service and ensuring your satisfaction with the Stile Board system. Whether you have questions about product features, need help with an order, or require after-sales support, we are here to help.

Customer Support Services Include:
- Information on product features, specifications, and benefits.
- Assistance with placing orders and tracking shipments.
- Help with warranty registration and claims.
- General inquiries and feedback.

Contact Customer Support:
Phone: 02 9688 1002
Email: info@stileboard.com.au
Hours: Monday to Friday, 9:00 AM to 5:00 PM (AEST)

We are committed to ensuring that your experience with Stile Board is seamless and satisfactory. Please do not hesitate to reach out to us for any assistance you may require.

Disclaimer

The information provided in this installation manual is intended to serve as a general guide for the installation of the Stile Board System. It does not cover all possible scenarios and should not be considered exhaustive. Each installation project may have unique requirements, and professional judgment should be exercised in such cases.

The user assumes all risks associated with the installation and use of the Stile Board System. We recommend consulting with a professional installer or contractor if you encounter any challenges during the installation process.

Stile Board and its affiliates shall not be liable for any damages, losses, or injuries arising from the installation, use, or misuse of the Stile Board System or any related materials.

Please ensure that you comply with all local building codes, regulations, and guidelines during the installation process. Always prioritize safety and take necessary precautions to protect yourself and others while working on your project.

Maintenance and Care

To ensure the longevity and performance of the Stile Board System, regular maintenance and care are essential. Follow these guidelines to keep your installation in excellent condition:

14.1 Cleaning

Clean the surface of the Stile Board System regularly to remove dust, dirt, and grime. Use a mild detergent and water solution with a soft cloth or sponge. Avoid using abrasive cleaners or harsh chemicals that may damage the surface or sealants.

14.2 Repairs

If you notice any damage or defects in the Stile Board System, take appropriate action to repair or replace the affected components. Follow the instructions provided in this manual or seek professional assistance if necessary.

Additional Resources

For further assistance, additional resources, or instructional videos, visit our website: **www.stileboard.com**. We regularly update our website with valuable information and helpful guides to support your installation process.

Final Words

Thank you for choosing the Stile Board System for your building project. We are confident that our innovative and reliable product will meet your expectations and provide exceptional performance for years to come.

If you encounter any challenges during the installation process or have any feedback to share, please do not hesitate to reach out to our customer support team. Your satisfaction is our priority, and we are here to assist you at every step of the way.

We wish you a successful and rewarding installation experience with the Stile Board System. Happy building!