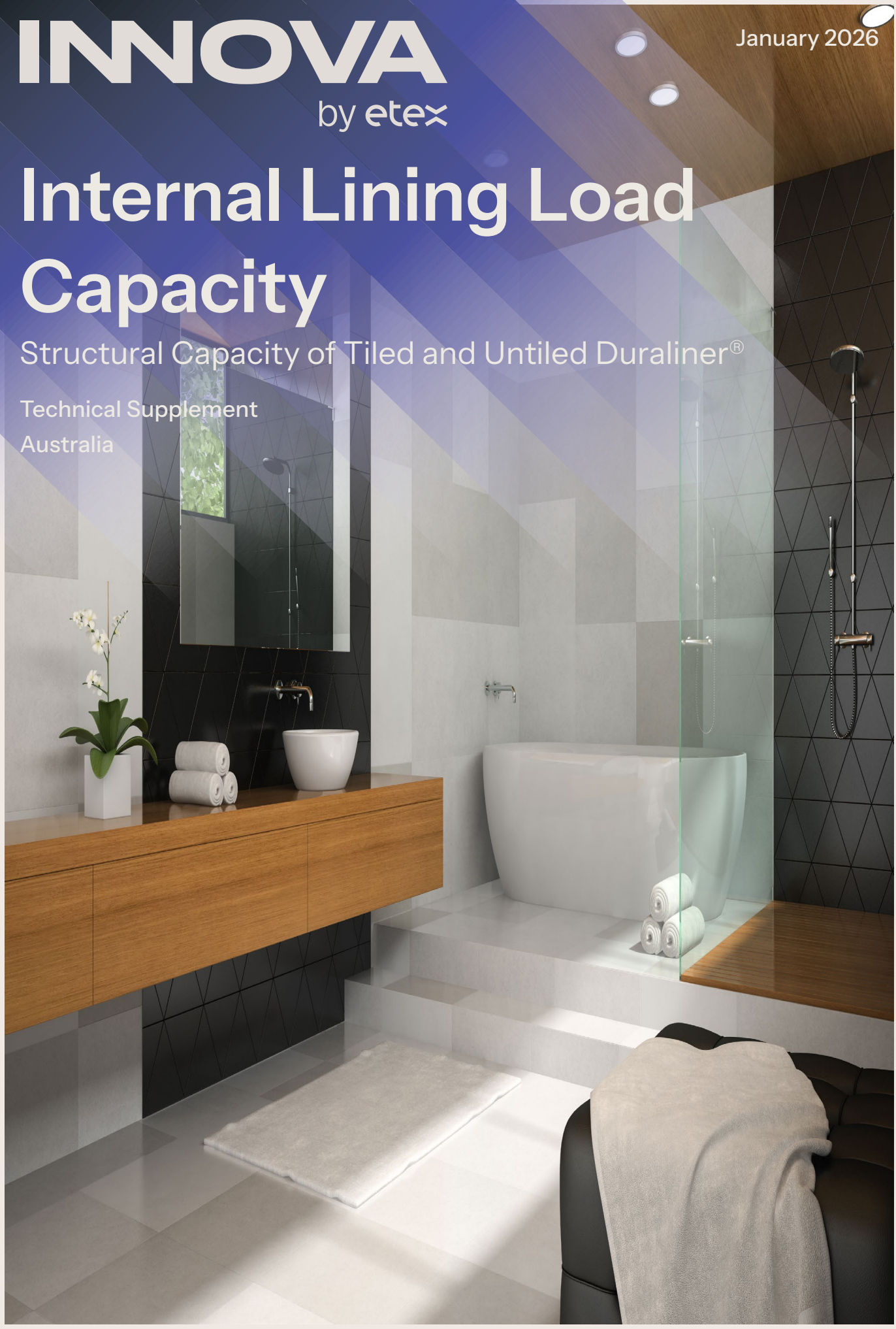
INNOVA by etex

January 2026

Internal Lining Load Capacity

Structural Capacity of Tiled and Untiled Duraliner®

Technical Supplement
Australia



Disclaimer

Innova products and systems designed by Etex Australia Pty Ltd are produced in accordance with the Building Code of Australia and relevant Australian Standards at the time of publication. Information in this document is to be used as a guide and is subject to project approval as many aspects of construction are not comprehensively covered. It is the responsibility of the designer to confirm Innova products and systems are suitable and meet the requirements for the intended application. Etex Australia Pty Ltd will not be held responsible for any claims resulting from installation not in accordance with the manufacturer's technical literature or relevant Standards.

Failure to design, install, finish and maintain Innova fibre cement products accordance with this Technical Supplement, Design & Installation Guides, applicable state or territory building codes, regulations and Australian Standards may lead to injury, reduction in performance, violate building codes and product warranties.

Innova regularly updates technical literature; to ensure this document is current with the latest information, visit innovafibrecement.com.au.

About Innova

Innova is a commercial brand of Etex, a global building material manufacturer and pioneer in lightweight construction. Etex wants to inspire people around the world to build living spaces that are ever more safe, sustainable, smart, and beautiful. Founded in 1905 in Belgium, Etex are a family-owned company with more than 13,500 employees across 160 sites and 45 countries.

Innova are the fibre cement specialists, and distribute external cladding systems, interior lining and flooring substrate products specifically designed for the residential and commercial markets in Australia and New Zealand

With a deep understanding of the local market needs, the Innova range of fibre cement products provide architects, designers, builders and homeowners with a range of traditional and contemporary solutions to create spaces that work for their project.

Innova are constantly looking for ways to evolve and innovate their product offering, adapting to changes in the market.

Innova - built on change, backed by Etex.

1. Working Safely

1.1 Working Safely with Innova Fibre Cement

WARNING: P2 OR HIGHER-GRADE RESPIRATOR MUST BE WORN AND PRODUCT CUT OUTDOORS.

Innova fibre cement is manufactured from finely ground sand (silica), cellulose fibers, portland cement and additives. In the product's manufactured state, it does not release airborne dust. Inhalation of Respirable Crystalline Silica (RCS) is hazardous and can cause damage to lungs, respiratory system, and cancer when users are exposed to dust over prolonged periods without adequate controls in place.

The risks associated with RCS inhalation arise during installation activities where mechanical methods are used for cutting, rebating, drilling, routing, crushing, sanding and cleaning up, disposing of, or relocating dust.

Before, during and after installation, it is important to be aware of activities that generate and lead to dust becoming airborne. Innova recommends following the Innova Working Safely Guidelines listed below in addition to site-specific safety procedures, Safe Work Australia guidelines and state or territory guidelines.

USERS ARE RESPONSIBLE FOR ADHERING TO GUIDELINES, RECOMMENDATIONS, SAFETY DATA SHEETS, INSTALLATION GUIDES, FEDERAL AND LOCAL REGULATIONS TO AVOID SERIOUS HEALTH IMPACTS.

Control the risks by utilising engineering controls (i.e. tools/equipment), administrative controls (i.e. workspace/safe work method statement) and correct PPE (i.e. respirator/eye wear).

1.2 Innova Working Safely Guidelines

Documentation

Read the current Safety Data Sheet and Working Safely documents available at innovafibrecement.com.au.

ALWAYS wear a properly fitted P2 or higher-grade respirator when cutting, drilling, rebating, sanding.

ALWAYS use on-tool dust extraction when using power tools; M or H-Class vacuum fitted with a HEPA filter.

ALWAYS alternate cutting activities with others to reduce exposure time.

ALWAYS follow the tool manufacturer's guidelines for correct and safe operation.

AVOID using power tools to cut or shape fibre cement products indoors.

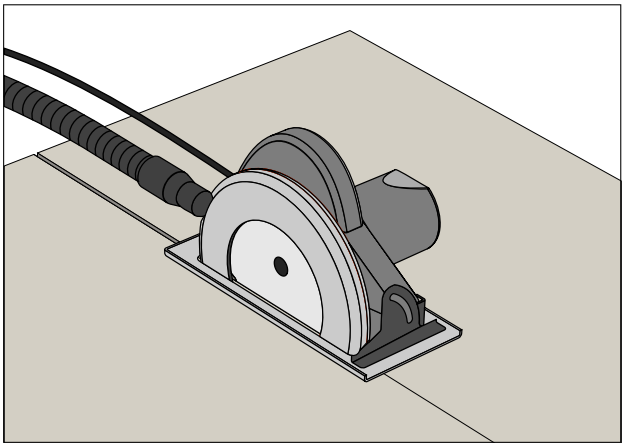
DO NOT dry sweep. Use wet suppression then sweep or H or M-Class vacuum.

NEVER use a saw blade that is not designed to cut fibre cement.

DO NOT continue activities if you are concerned about exposure levels or cannot comply with the above guidelines.

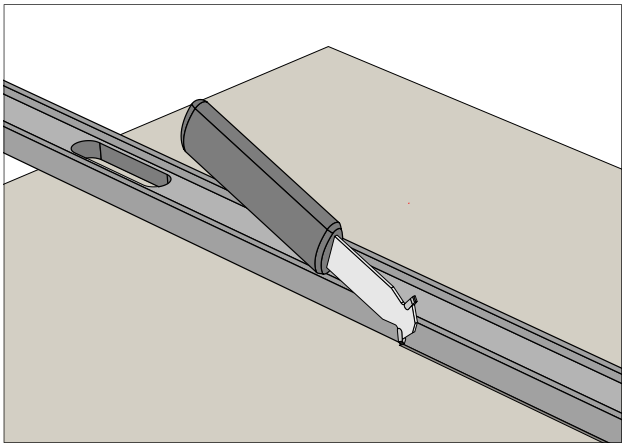
Power Saw

Circular, compound mitre and track saws with dust extraction provide accurate and clean cuts. Ensure saw is fitted with a PCD 4 or 6 tooth fibre cement blade. Always follow the manufacturers guidelines for safe operation.



Score and Snap Knife

Score the face of the product using a straight edge and repeat until adequate depth is achieved for a clean break when pulling upwards. Smooth rough edges with a rasp.



1. Introduction

Duraliner® is a fibre cement internal lining sheet suitable for residential and commercial construction, offering exceptional durability and load carrying capacity for tiled areas, while in untiled spaces, it can be flush jointed to achieve a seamless, monolithic finish.

The product is supplied with factory-machined recesses along two longitudinal edges and one transverse end, thereby facilitating seamless joint construction.

This Technical Supplement outlines the structural requirements and tile load capacities for 6mm and 9mm Duraliner®, both for tiled and untiled applications, across a range of wind classifications and pressure conditions. This document must be read in conjunction with the current Duraliner® Design and Installation Guide.

2. Product Conformance

Duraliner® is manufactured from Portland cement, finely ground sand, cellulose fibres and water. The sheets are cured in a high-pressure steam autoclave to create a durable, dimensionally stable product.

Innova fibre cement products are manufactured to conform to the requirements of AS/NZS 2908 Cellulose-Cement Products, Part 2: Flat Sheets.

For further information in relating to product performance and compliance, refer to Duraliner® Design and Installation Guide.

3. Applications

Duraliner® has been specifically designed and engineered for use in internal wall systems, including wet area applications, where structural reliability is a primary requirement. Duraliner® has undergone engineering evaluation to confirm its capacity to act as a stable wall lining and as a substrate for tiles under defined load and pressure conditions.

Duraliner® is suitable for

- All building classes.
- Tile loads up to 60kg per square metre.
- Internal wind pressures in residential construction up to N6 and commercial construction up to 2.0kPa.
- May be used where non-combustible materials are required.

4. Wet Areas

Duraliner® functions as a structural lining element in wet area wall assemblies such as bathrooms, laundries, and kitchens. It's material composition and autoclaved curing process provides dimensional stability, ensuring the sheet maintains integrity when subjected to mechanical loads and environmental stresses.

5. Internal Wall Systems

Within general interior wall applications, Duraliner® contributes to the overall structural performance of the wall system. Fastener spacing requirements have been determined to ensure the boards remain secure under varying wind classifications and pressures. These parameters are critical to maintaining wall stability and preventing structural failure for both tiled and untiled applications.

6. Compliance and Certification

The performance values provided in this supplement have been developed from materials testing, systems testing, and structural engineering calculations carried out in general accordance with AS/NZS 1170 principles.

These values are intended to demonstrate alignment with the structural provisions of NCC 2022: Volume 1, Section B, Part B1 and Volume 2, Section H, Part H1. They are provided as guidance to support design and installation practices and should always be read in conjunction with the current Duraliner® Design and Installation Guide.

The sheet has been comprehensively tested and structurally assessed to support tiled finishes, with defined tile weight limits established through independent validatory testing at NATA-accredited laboratories.

7. Framing

Duraliner® sheets may be installed directly onto lightweight metal framing or timber studs/battens.

Metal framing: The minimum thickness shall be 0.5mm BMT, constructed in accordance with applicable framing standards.

Timber framing: Studs or battens must be MGP10 grade timber with a minimum thickness of 40mm, ensuring adequate fastener penetration.

All framing must be constructed to comply with the Building Code of Australia (BCA) and Australian Standards. Frames must be set to a true plane to achieve a straight and uniform wall finish. Stud spacing shall not exceed 600mm centres.

8. Fasteners

For both 6mm and 9mm Duraliner® sheets, the following fasteners shall be used:

Framing	Fastener Type	
Timber	—	30 x 2.8mm Min. Class 3 Galvanised Fibre Cement Nail
	—	8g x 25mm Min. Class 3 Flowerhead Timber Screw
Steel	—	8g x 25mm Min. Class 3 Flowerhead Steel Screw; suitable for 0.5mm BMT to 1.6mm BMT.

9. Structural Design

Tables 1 to 6 presents the maximum tile weight and thickness, considering the wind pressure or classification for Duraliner® 6mm and 9mm, for 300mm, 450mm and 600mm stud centres. Table 7 provides maximum allowable wind pressures for untiled Duraliner® sheets for 300mm, 450mm and 600mm stud centres.

Each table further accounts for a range of wind load scenarios, enabling designers, engineers, and builders to evaluate the suitability of Duraliner® for diverse environmental exposures.

The tables must be adhered to for safe use of Duraliner® in wall assemblies subject to wind pressure and load carrying.

10. Tile Load capacity of 6mm and 9mm Duraliner® at 300mm Stud Centres

Table 1: Maximum allowable tile weight under different wind pressures at 300mm stud centres

Wind Pressure (kPa)	Duraliner® Thickness (mm)	Tile	
		Max. Tile Thickness (mm)	Max. Tile Weight (kg/m²)
0.0-1.0	6.0	13.0	40.0
	9.0	20.0	60.0
1.01-1.50	6.0	13.0	40.0
	9.0	20.0	60.0 *
1.51-2.0	6.0	---	N/A
	9.0	20.0	60.0 *

Table 2: Maximum allowable tile weight under different wind classifications at 300mm stud centres

Wind Classification	Duraliner® Thickness (mm)	Tile	
		Max. Tile Thickness (mm)	Max. Tile Weight (kg/m²)
N1	6.0	13.0	40.0
	9.0	20.0	60.0
N2	6.0	13.0	40.0
	9.0	20.0	60.0
N3	6.0	13.0	40.0
	9.0	20.0	60.0
N4	6.0	13.0	40.0
	9.0	20.0	60.0
N5	6.0	13.0	40.0
	9.0	20.0	60.0
N6	6.0	13.0	40.0
	9.0	20.0	60.0 **

Note:

1. Symbols " * " and " ** " indicate Duraliner® 9mm shall be screw fixed only on timber and steel framing.

2. "N/A" denotes wind pressure/classification and load exceeds product capability. See alternate product thickness options.

3. **Untiled Duraliner®:** Sheets must be fixed at maximum 300mm centres across the sheet body and 200mm centres along the sheet perimeter.

4. **Tiled Duraliner®:** Where a solution is provided in the table, fasteners must be positioned at maximum 200mm centres across both the sheet body and perimeter.

5. Walls exceeding 3000mm in height should not be tiled without appropriately designed support angles. The suitability and positioning of support angles must be determined by a structural engineer.

6. The overall wall mass and stability must be considered.

7. Sheets must be supported around their perimeter.

8. Duraliner® must be installed in accordance with the Duraliner® Design and Installation Guide.

9. In the Table above, the deflection limit for untiled Duraliner® boards is SPAN/200, while for tiled Duraliner® boards is SPAN/360.

10. Minimum framing requirements: MGP10 timber or steel (0.5mm BMT), designed and constructed in accordance with relevant framing standards, including wind pressure and face loading effects per the AS/NZS 1170 suite of standards.

11. Values presented in these tables are based on materials testing, systems testing, and structural engineering calculations in general accordance with AS/NZS 1170 principles. They demonstrate compliance with NCC 2022:

- Volume 1: Section B, Part B1 – Structural Provisions (B1P1 & B1P)
- Volume 2: Section H, Part H1 – Structure (H1P1).

12. In the table above, the tile thickness represents the combined thickness of the tile, tile adhesive, and waterproofing membrane, and the density of these layers is specified as 3,000 kg/m³.

11. Tile Load capacity of 6mm and 9mm Duraliner® at 450mm Stud Centres

Table 3: Maximum allowable tile weight under different wind pressures at 450mm stud centres

Wind Pressure (kPa)	Duraliner® Thickness (mm)	Tile	
		Max. Tile Thickness (mm)	Max. Tile Weight (kg/m²)
0.0-0.45	6.0	13.0	40.0
	9.0	20.0	60.0
0.46-1.0	6.0	---	N/A
	9.0	20.0	60.0
1.01-2.0	6.0	---	N/A
	9.0	20.0	60.0 *

Table 4: Maximum allowable tile weight under different wind classifications at 450mm stud centres

Wind Classification	Duraliner® Thickness (mm)	Tile	
		Max. Tile Thickness (mm)	Max. Tile Weight (kg/m²)
N1	6.0	13.0	40.0
	9.0	20.0	60.0
N2	6.0	13.0	40.0
	9.0	20.0	60.0
N3	6.0	13.0	40.0
	9.0	20.0	60.0
N4	6.0	---	N/A
	9.0	20.0	60.0
N5	6.0	---	N/A
	9.0	20.0	60.0
N6	6.0	---	N/A
	9.0	20.0	60.0 **

Note:

1. Symbols " * " and " ** " indicate Duraliner® 9mm shall be screw fixed only on timber and steel framing.

2. "N/A" denotes wind pressure/classification and load exceeds product capability. See alternate product thickness options.

3. **Untiled Duraliner®:** Boards must be fixed at maximum 300 mm centres across the sheet body and 200 mm centres along the sheet perimeter.

4. **Tiled Duraliner®:** Where a solution is provided in the table, fasteners must be positioned at maximum 200 mm centres across both the sheet body and perimeter.

5. Walls exceeding 3000mm in height should not be tiled without appropriately designed support angles. The suitability and positioning of support angles must be determined by a structural engineer.

6. The overall wall mass and stability must be considered.

7. Sheets must be supported around their perimeter.

8. Duraliner® must be installed in accordance with the Duraliner® Design and Installation Guide.

9. In the Table above, the deflection limit for untiled Duraliner® boards is SPAN/200, while for tiled Duraliner® boards is SPAN/360.

10. Minimum framing requirements: MGP10 timber or steel (0.5mm BMT), designed and constructed in accordance with relevant framing standards, including wind pressure and face loading effects per the AS/NZS 1170 suite of standards.

11. Values presented in these tables are based on materials testing, systems testing, and structural engineering calculations in general accordance with AS/NZS 1170 principles. They demonstrate compliance with NCC 2022:

- Volume 1: Section B, Part B1 – Structural Provisions (B1P1 & B1P)
- Volume 2: Section H, Part H1 – Structure (H1P1).

12. In the table above, the tile thickness represents the combined thickness of the tile, tile adhesive, and waterproofing membrane, and the density of these layers is specified as 3,000 kg/m^3.

12. Tile Load capacity of 6mm and 9mm Duraliner® at 600mm Stud Centres

Table 5: Maximum allowable tile weight under different wind pressures at 600mm stud centres

Wind Pressure (kPa)	Duraliner® Thickness (mm)	Tile	
		Max. Tile Thickness (mm)	Max. Tile Weight (kg/m²)
0.0-0.5	6.0	8.0	24.0
	9.0	13.0	40.0
0.65	6.0	---	N/A
	9.0	13.0	40.0
0.95	6.0	---	N/A
	9.0	13.0	40.0 *
1.0	6.0	---	N/A
	9.0	13.0	40.0 **

Table 6: Maximum allowable tile weight under different wind classifications at 600mm stud centres

Wind Classification	Duraliner® Thickness (mm)	Tile	
		Max. Tile Thickness (mm)	Max. Tile Weight (kg/m²)
N1	6.0	8.0	24.0
	9.0	13.0	40.0
N2	6.0	8.0	24.0
	9.0	13.0	40.0
N3	6.0	8.0	24.0
	9.0	13.0	40.0
N4	6.0	---	N/A
	9.0	13.0	40.0
N5	6.0	---	N/A
	9.0	13.0	40.0 #

Table 7: Maximum allowable wind pressure for untiled Duraliner® sheets at different stud centres

Stud spacing (mm)	Duraliner® Thickness (mm)	Nail fixed Duraliner® (kPa)	Screw fixed Duraliner® (kPa)
300	6.0	2.0	4.0
	9.0	2.0	6.0
450	6.0	1.3	2.5
	9.0	1.3	4.0
600	6.0	1.0	2.0
	9.0	1.0	3.0

Note:

1. Symbols " * " , " ** " and " # " indicate Duraliner® 9mm shall be screw fixed only on timber and steel framing.

2. "N/A" denotes wind pressure/classification and load exceeds product capability. See alternate product thickness options.

3. **Untiled Duraliner®:** Boards must be fixed at maximum 300 mm centres across the sheet body and 200 mm centres along the sheet perimeter. t

4. **Tiled Duraliner®:** Where a solution is provided in the table, fasteners must be positioned at maximum 200 mm centres across both the sheet body and perimeter.

5. Walls exceeding 3000mm in height should not be tiled without appropriately designed support angles. The suitability and positioning of support angles must be determined by a structural engineer.

6. The overall wall mass and stability must be considered.

7. Sheets must be supported around their perimeter.

8. Duraliner® must be installed in accordance with the Duraliner® Design and Installation Guide.

9. In the Table above, the deflection limit for untiled Duraliner® boards is SPAN/200, while for tiled Duraliner® boards is SPAN/360.

10. Minimum framing requirements: MGP10 timber or steel (0.5mm BMT), designed and constructed in accordance with relevant framing standards, including wind pressure and face loading effects per the AS/NZS 1170 suite of standards.

11. Values presented in these tables are based on materials testing, systems testing, and structural engineering calculations in general accordance with AS/NZS 1170 principles. They demonstrate compliance with NCC 2022:

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12. In the table above, the tile thickness represents the combined thickness of the tile, tile adhesive, and waterproofing membrane, and the density of these layers is specified as 3,000 kg/m^3.