

TECHNICAL PROPERTIES

APRIL 2025

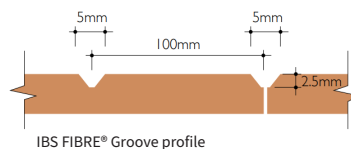
1. Product Description

IBS FIBRE® Groove is a non combustible fiber cement panel, manufactured on Hatschek machine from a precise combination of cement, silica and natural organic reinforcing fibers. During the production, the boards are cured and stabilized in an autoclave process involving high temperature and pressure control, ensuring a final product with optimum dimensional stability and exceptional mechanical properties.

2. Applications

IBS FIBRE® Groove is a fiber cement board with a 2.5mm deep, 5mm wide V shaped groove at every 100mm centres to replicate traditional tongue and groove style paneling that,

- can be finished with expressed or flushed joint
- can be coated with acrylic or texture coating



as internal wall lining, eaves or soffit cladding with superior resistance and aesthetic appeal.

3. Benefits

IBS FIBRE® Groove is an advanced building material, serving as the best alternative to wood, concrete and masonry construction;

- Wide variety of applications
- Dimensionally stable
- Great tensile strength and impact resistant
- Moisture, mould and water resistant
- Resistant to attack of termites, insects and mould growth
- Easy to install and work with (cut, nail, screw over metal or timber construction)
- Environmentally-friendly, no harmful gas emission
- Non combustible

4. Dimensions and tolerances:

Available Dimensions

Product	Thickness (mm)	Width x Length (mm)
IBS FIBRE® Groove	7.5	1200 x 2400, 1200 x 2700

Dimensional Tolerance

Thickness	±0.6 mm
Width	± 6 mm
Length	± 8 mm
Squareness of Edges	≤ 0.4 %
Straightness of Edges	≤ 0.3 %

Weight (ex-works) based on nominal density plus variation

Thickness (mm)	Weight (kg/m ²)	Weight (kg/ standard sheet)
6.0	+/- 8.52	Varies

Thicknesses, sizes, and types of the sheets which differ from those available as standard, are available subject to minimum order quantities.

TECHNICAL PROPERTIES

APRIL 2025

5. Technical Properties

The product has been tested based on internationally recognized standards and test methods for the fiber cement flat sheet and building material requirements such as EN 12467, AS/ NZS 2908.2 ASTM C1185, BS 476 relevant parts on material reaction to fire and EN13501 fire classification standards.

Physical and Mechanical Properties	Value	Standard
Dimensional Conformity - Thickness - Length - Width - Straightness of edges - Squareness of edges	Passed	AS/NZS 2908.2
Density (average)	> 1250 kg/m ³	AS/NZS 2908.2
Bending strength (Type A – Category 3 average) (Type B – Category 3 average)	> 7.0 MPa > 10.0 MPa	AS/NZS 2908.2
Bending Elastic Modulus (ambient)	> 8500 MPa	AS/NZS 2908.2
Water absorption	33 ± 2 %	ASTM C1185
Moisture content	10 - 15 %	ASTM C1185
Moisture movement (Hygric) – Relative Humidity from 30% to 90%	≤ 0.05 %	EN 12467:2016
Thermal conductivity	0.25 W/mK	ASTM C518:2010
Durability (Type A Requirement)	Value	Standard
Water permeability	Passed	AS/NZS 2908.2
Warm water performance	Passed	AS/NZS 2908.2
Heat-rain performance – Category A	Passed 50 Cycles	EN 12467:2016
Soak-dry performance – Category A	Passed 50 Cycles	EN 12467:2016
Frost resistance	Passed 50 Cycles	AS/NZS 2908.2
Reaction to Fire	Value	Standard
Non Combustibility	Non Combustible	BS 476 Part 4:1970
Heat Release Smoke Production and Mass Loss	Group 1	ISO 5660 Part 1:2015
Fire Hazard Properties Ignitability Index Spread of Flame Index Heat Evolved Index Smoke Development Index	0 0 0 1	AS 1530 Part 3:1999
Heat Emission	Pass	BS 476 Part 11:1982
Fire classification using test data from reaction to fire tests	Class A1	EN 13501-1:2007 + A1:2009

TECHNICAL PROPERTIES

APRIL 2025

6. Health and safety aspects

During the mechanical machining of panels, airborne dust which may be hazardous to health, may be released. Avoid direct contact of dust with skin and eyes as they may cause irritation. The use of dust extraction equipment is advised. Respect regulatory occupational exposure limits for total inhalable and respirable dust. For more information, please check the Material Safety Data Sheet before working with the product.

7. Certification

All IBS products are manufactured in accordance with ISO standards. IBS has earned CodeMark Certification, and the certificates are available for download at www.ibs.co.nz.

----- End of Session -----