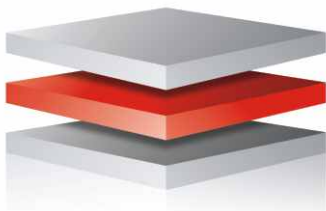
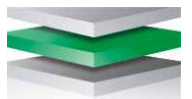


E~~X~~LINE

DECORATIVE FINISH SUBSTRATE PANELS INSTALLATION MANUAL



MULTIBOARD
www.multiboard.com.au



MULTIBOARD
MGO
PERFORMANCE
WALLS

E~~X~~TERNAL E~~X~~CELLENCE

PRODUCT DESCRIPTION

eXLine is a versatile, glass fibre-reinforced recycled wood fibre and magnesium cement based panel designed for external cladding.

Fabricated from a combination of recycled timber materials (50%), mineral fibres and the latest fire retardant chemicals, eXLine can be used in a number of areas within the construction of residential and commercial buildings externally in most applications.

PRODUCT INFORMATION

Compliance with AS2908.2

eXLine sheets conform to the requirements of AS/NZS2908.2: Cellulose-Cement Products Part 2: Flat Sheets.

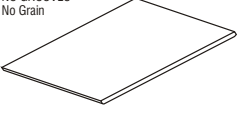
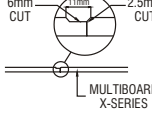
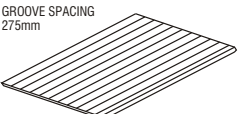
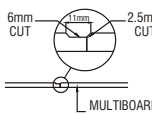
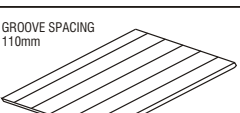
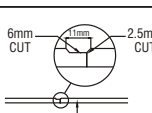
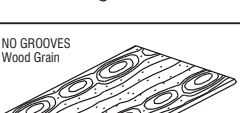
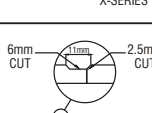
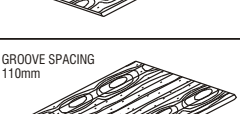
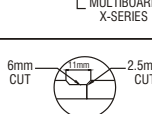

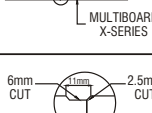
eXLine products are classified Type A, Category 3, in accordance with AS2908.2 'Cellulose-Cement Products'.

Mass and Dimensions

eXLine is available in the following lengths:

EXLINE				
Width (mm)	Length (mm)	Thickness (mm)	Approx Weight (kg/m ²)	Weight (kg)
1100	2400	8	8.8	23.23kg
	2700			26.14kg
	3000			29.04kg

NEW EXLINE SERIES

NO GROOVES No Grain 	6mm CUT 11mm CUT 2.5mm CUT  MULTIBOARD X-SERIES
GROOVE SPACING 275mm 	6mm CUT 11mm CUT 2.5mm CUT  MULTIBOARD X-SERIES
GROOVE SPACING 110mm 	6mm CUT 11mm CUT 2.5mm CUT  MULTIBOARD X-SERIES
NO GROOVES Wood Grain 	6mm CUT 11mm CUT 2.5mm CUT  MULTIBOARD X-SERIES
GROOVE SPACING 110mm 	6mm CUT 11mm CUT 2.5mm CUT  MULTIBOARD X-SERIES
GROOVE SPACING 275mm 	6mm CUT 11mm CUT 2.5mm CUT  MULTIBOARD X-SERIES

The manufacturing tolerances for eXLine are as follows:

- Width (+/- 0.15mm)
- Length (+/- 0.15mm)
- Thickness (+/- 0.25mm)

Fire Resistance

eXLine is classified as non-combustible and has been tested in accordance with AS1530.1.








When tested in accordance with AS1530.3, the Early Fire Hazard Indices are as follows:

Ignitability Index	0	Range 0-20
Spread of Flame Index	0	Range 0-10
Heat Evolved Index	0	Range 0-10
Smoke Developed Index	0-1	Range 0-10

eXLine was tested to AS 3837 and found to have a Group 1 classification and average specific extinction area >0.1m²/kg.

MULTIBOARD PROPERTIES

eXLine outperforms other building boards in many important ways including the following:

	Moisture Resistant Tested to ASTM E 514-03 Standard test Method for Water Penetration & Leakage through Masonry.
	Termite Resistant Laboratory tested by Termimesh Australia.
	Ease of Use and Installation Normal woodworking equipment required to cut and shape.
	Fire Resistant Non combustible.
	Strength / Impact Resistance Tested to the strict requirements of AS2908.2.
	Lightweight Over 30% lighter than traditional cement sheeting.
	100% Safe to Use No harmful crystalline silica or asbestos is used in its composition. Tested as safe.

Acoustic Requirements



High acoustic performance.

Environmentally Friendly



50% recycled bamboo / wood fibre, 40% less embodied energy to produce than fibre cement.

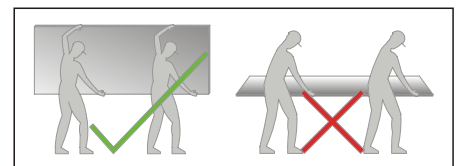
HANDLING & STORAGE

eXLine should be kept dry, and be stored in a dry and covered area.

If stored externally, eXLine must be stacked flat, be stacked above the ground, supported on level ground and must be protected from the weather.

Care should be taken to avoid damage to the products edges, ends and surfaces. If the product becomes wet, the product must be allowed to dry before fixing.

eXLine should be stacked and handled carefully to avoid damage.



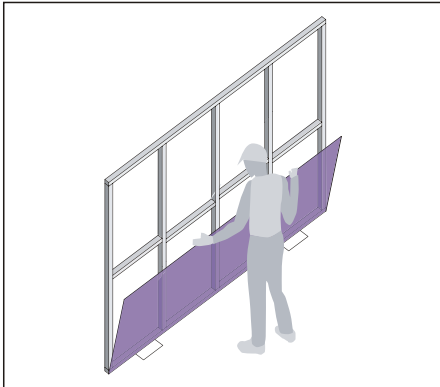
Boards should be lifted from the pallet by sliding sideways and carried on its long edges. Individual boards should be stacked and handled carefully to avoid damage.

SHEET CUTTING

	Smooth Cutting For smooth cuts, use a circular saw.
	Sawing and Planing eXLine can also be cut easily using a normal hand saw.
	The edge of eXLine can be planed or smoothed with an electric planer, rasp or file, or conventional papers if sanding is required.
	Drilling For making holes in the board, use a standard drill tip. Do not use hammer action.

Fixing

Direct fixing to the frame structure requires Multiboard **eXLine** products to be joined over framing studs, noggings and to be supported by the top/bottom plate.



Multiboard recommends the use of 42mm (min) seasoned treated pine timber battens or 50mm (min) light gauge steel top hats be installed which allows for the system layout to be independent of the wall frame. This installation method provides greater installation and thermal performance efficiency.

Do not place fixings closer than 15mm from sheet edges, or closer than 100mm from the **eXLine** sheet corners.

The sheet must be held firmly against the framing when fixing to ensure breakout does not occur at the back. Fixing is recommended from the centre of the sheet and work outwards, to ensure sheets are hard against the frame, to avoid drumminess.

Fasteners

When fastening **eXLine** products, we recommend timber screws STF 40-8 C4 8g or metal screws SMF 30-8 C4 8g are used.

Multiboard recommend at least Class 3 grade fasteners be used of the same gauge and length. You must countersink all screw holes and allow a clearance of 1mm over the diameter of the fasteners. When countersinking fasteners, the depth must be controlled by a gauge to restrict the head depth to no more than 1mm (approx.) below the face of the board.

Fasteners must have the appropriate level of durability for the intended use, particularly in areas subject to salt spray, such as coastal areas.

Spacing (mm)	Location (mm)	Wind Classification to AS 4055					
		N1	N2	N3	N4	N5	N6
Fastener Spacing	Within 1200 of building edge	200	200	200	200	200	200
	Elsewhere	200	200	200	200	200	200

Spacing (mm)	Location (mm)	Wind Classification to AS 4055					
		N1	N2	N3	N4	N5	N6
Stud Spacing	Within 1200 of building edge	600	600	600	450	300	300
	Elsewhere	600	600	600	600	450	450

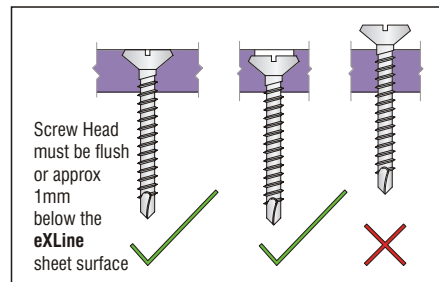
As a guide to the classification please refer to the following table:

Environmental Classification	Appropriate Fastener (Screw)
> 400m from ocean or from severe marine influence.	AS 3566 Class 3
Severe marine influence and up to 400m from marine environment.	AS 3566 Class 4 - Stainless Steel.

Two types of stainless steel fasteners are available for use in these areas.

Timber Fixing self drilling STF 40-8 C4 8g
Metal Fixing self drilling SMF 30-8 C4 8g

Fasteners must not be overdriven, as this can reduce the holding capacity of the sheet.



SHEET LAYOUT & INSTALLATION

Planning the sheet layout is very important, as this minimises wastage and also the number of sheet joints required.

Orientation

eXLine sheets must be installed horizontally, vertical joints to be staggered and always commence the first sheet from a corner.

A horizontal, staggered sheet installation of **eXLine** facilitates maximum bracing strength across the wall installation. Material wastage is minimised when the stud spacing is 600mm wide, although 450mm centres would provide a higher impact resistance.

Joints

eXLine joints are butt jointed to form the set (recessed-edge) joint. No gaps are to be left between sheets. The success of any joining system is very much dependant upon the correct construction of the framing, the fixing of **eXLine** and the application of the jointing materials.

Sarking

Vapour permeable sarking between **eXLINE** and the framing must be installed at all times. All warranties are void without the installation of sarking.

Use of reflective sarking will enhance the insulation properties of the cladding system.

All wall openings, penetrations, intersections, connections, window sills, heads and jambs must be fully flashed and waterproofed, before any **eXLINE** sheets are installed.

FRAMING

General

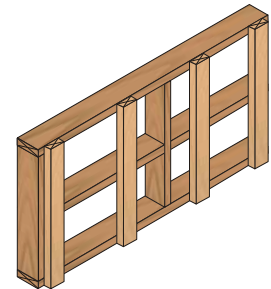
eXLine is suitable for use with both timber and lightweight steel framing.

- Framing must be constructed to comply with the relevant building regulations and standards.

- The framing must be set to a true plane to ensure a straight finish to the wall.
- Studs must be spaced at a maximum of 600mm centres.
- Noggings must be spaced at a maximum of 1100mm centres for horizontal sheet layout (sheet widths are a maximum of 1100mm).
- **eXLine** sheet edges **MUST** be supported by studs, noggings, top/bottom plates when direct fixed to frame structure.

Batten Fix Example

Position the batten according to predetermined and marked spacing's and ensure that they are vertical (check this with a spirit level in all planes).



Fix the battens on the flat to the frame using appropriate framing nails or screws.

Always check the alignment of all framing with a long straight edge before any installation is conducted. The maximum out of alignment should not exceed 4mm over 3000mm, 3mm over 1200mm or 2mm over 600mm. This should be checked both horizontally and vertically.

Excessive misaligned framing may contribute to an uneven surface after the coating has been applied. Multiboard will not be held responsible for this should it occur.

Please note: fixing to uneven surfaces or water saturated framing will void any warranty.

Timber Framing

Timber framing must comply with AS1684.2 and 3: 1999 Residential Timber - Framed Construction.

eXLine cannot be fixed to wet framing. Kiln dried timber/seasoned timber must be used. If sheets are fixed to wet framing, it is likely that problems will occur at a later date due to excessive timber shrinkage. Please note all warranties will be void if this is the case.

The timber framing thickness at the sheet joints must be a minimum of 42mm. A double stud at the sheet joint must be provided, if the timber framing is less than 42mm.

SHEET INSTALLATION

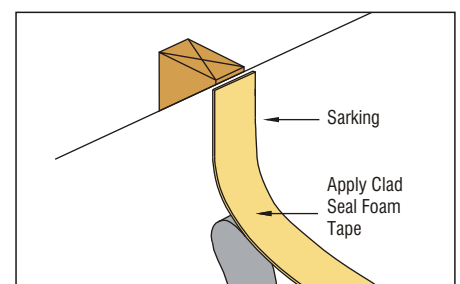


Figure 1 - Apply Clad Seal Foam Tape at Joint Locations

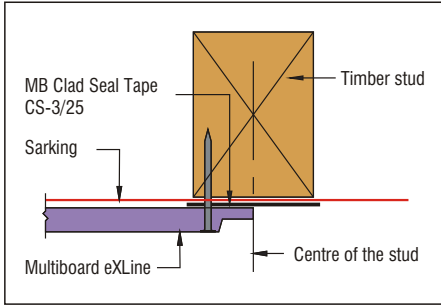


Figure 2 - Sheet Edge Location

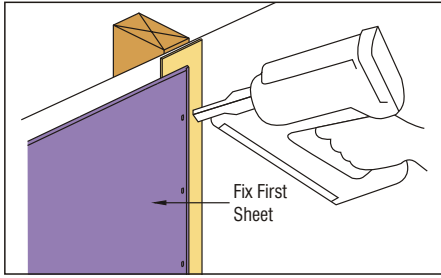


Figure 3 - First Sheet Installation

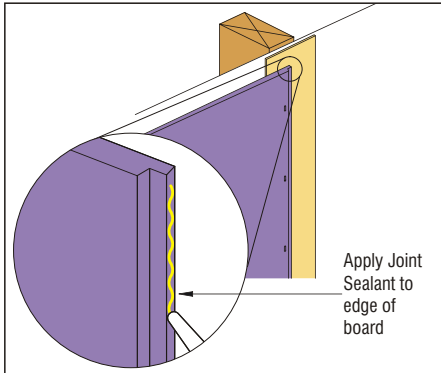


Figure 4 - Joint Sealant Application

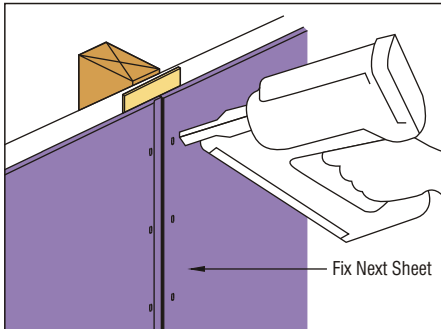


Figure 5 - Installation of Next Exline Sheet

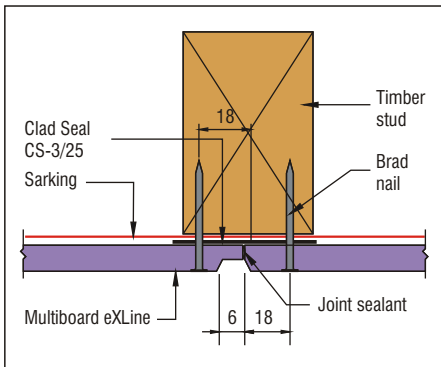


Figure 6 - Adjacent Sheet Fixing Detail

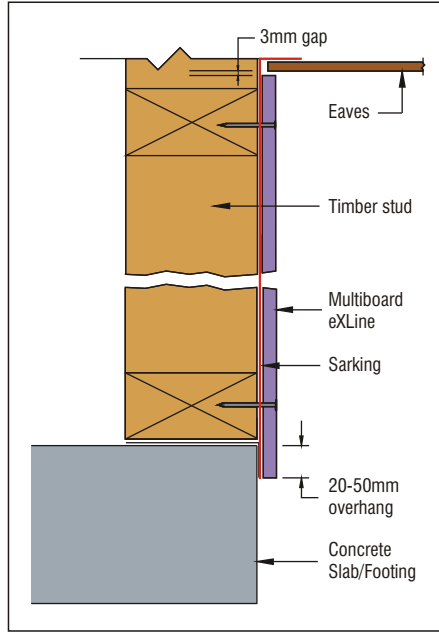


Figure 7 - Slab and Eave Detail

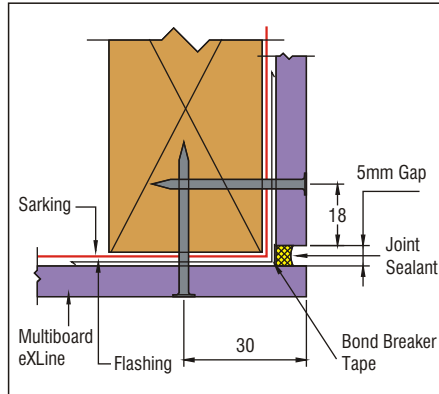


Figure 8 - External Sealant Fill Corner Detail

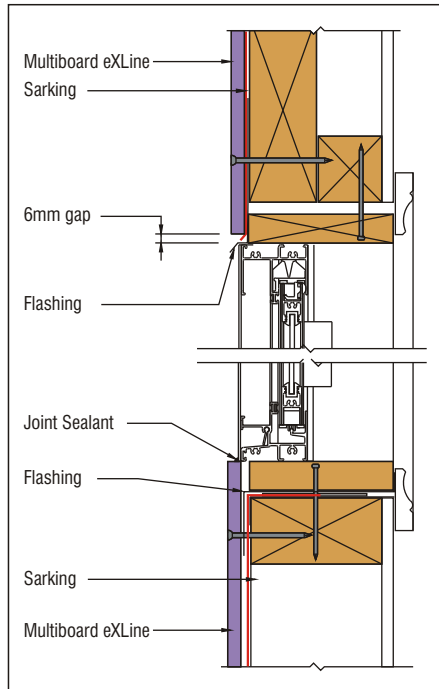


Figure 9 - Window Trim Details

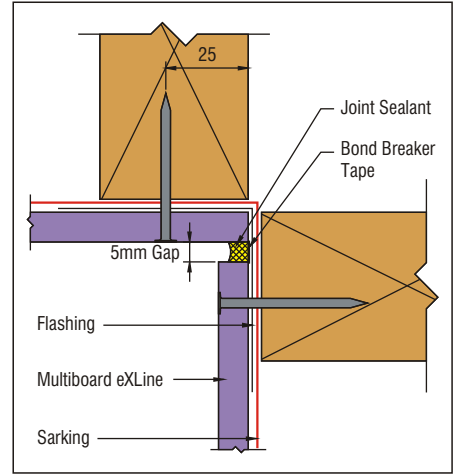


Figure 10 - Internal Sealant Fill Corner Detail

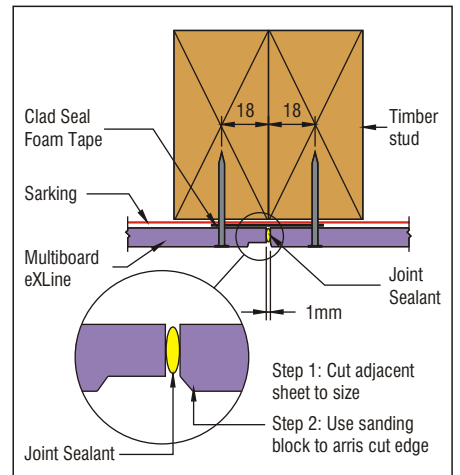


Figure 11 - Vertical Butt Joint Detail

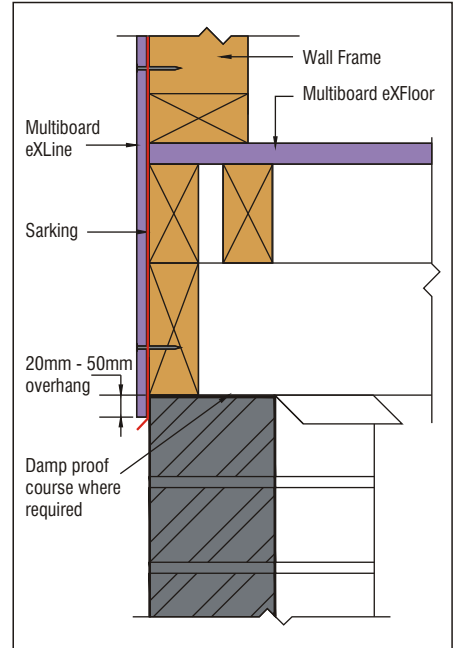


Figure 12 - Lower Floor Junction Detail

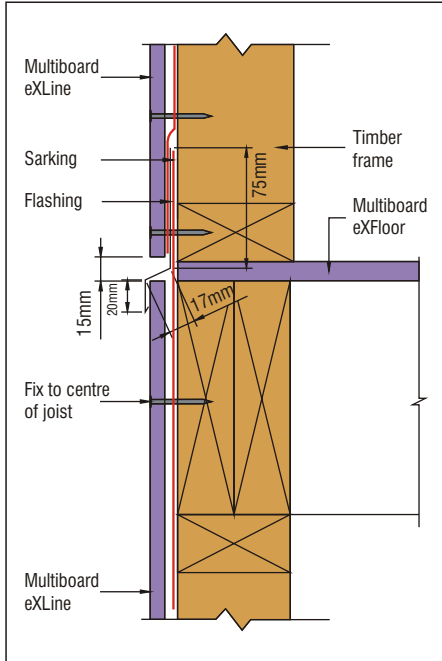


Figure 13 - Upper Floor Junction Detail

The eXLine board must not continue over a floor junction or where movement will occur. Join Aluminium Horizontal H flashings on intermediate studs and not off stud or behind board joins.

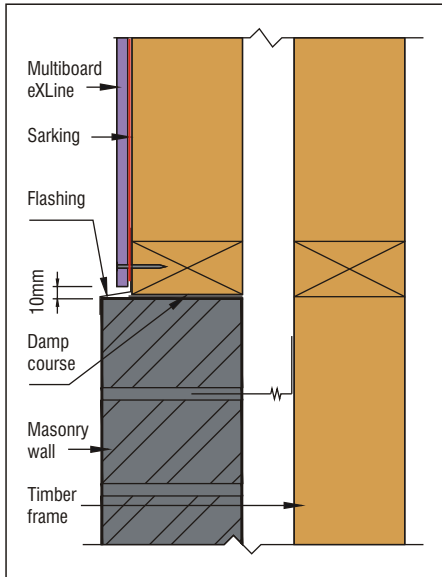


Figure 14 - Horizontal Junction Detail - Option 1

Steel Framing

Metal framing must comply with AS3623 - 1993 Domestic Steel Framing.

eXLine can be fixed directly to lightweight metal framing, of thickness between 0.5mm and 1.6mm (BMT).

Minimum flange width at the joints must be 35mm, to provide adequate support for the fixing of the sheet edges. A double stud at the sheet joint must be provided if the steel framing is less than 35mm.

eXLine sheets **must not** be fixed directly to drawn steel or hot-rolled steel sections. If Multiboard is to be installed on these members, then either 42mm (min) wide timber battens must be used or 50mm (min) wide light-gauge metal top-hats must be used.

SHEET INSTALLATION

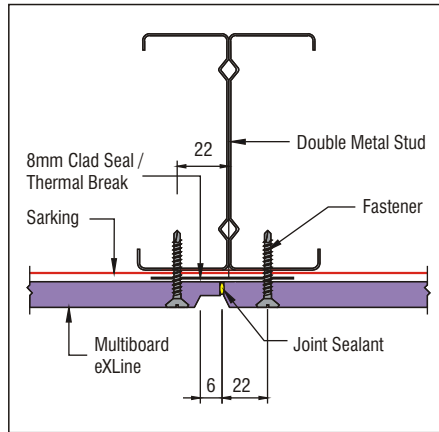


Figure 15 - Adjacent Sheet Fixing Detail

Once the next board has been fixed check for joint for gaps and fill.

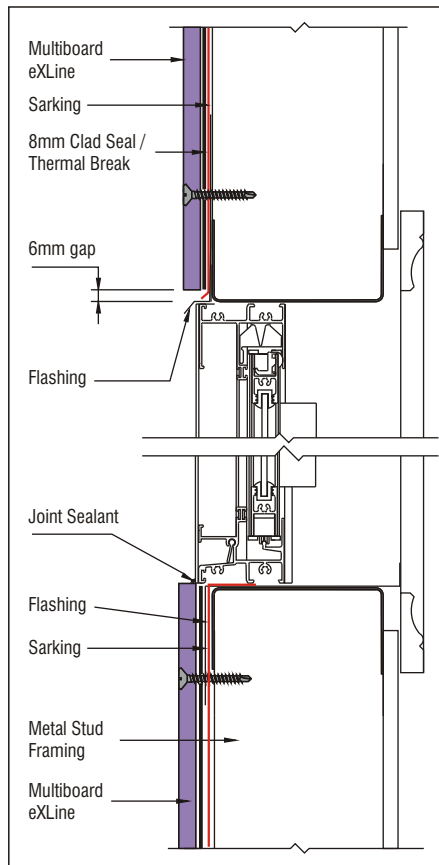


Figure 16 - Window Trim Details

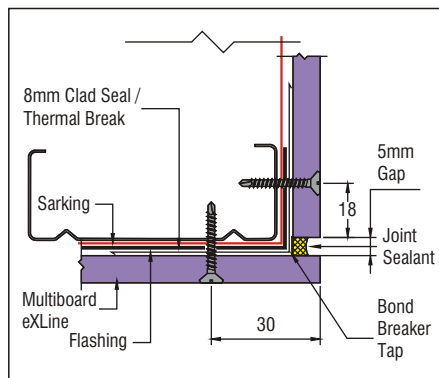


Figure 17 - External Sealant Fill Corner Detail

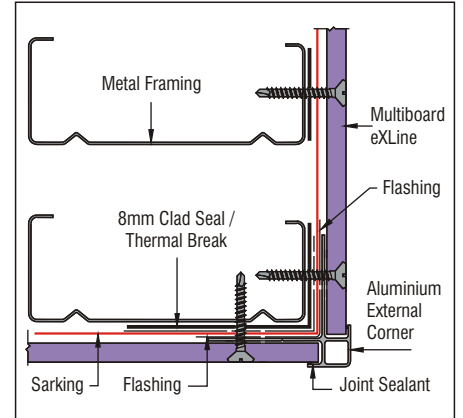


Figure 18 - External Aluminium Corner Detail

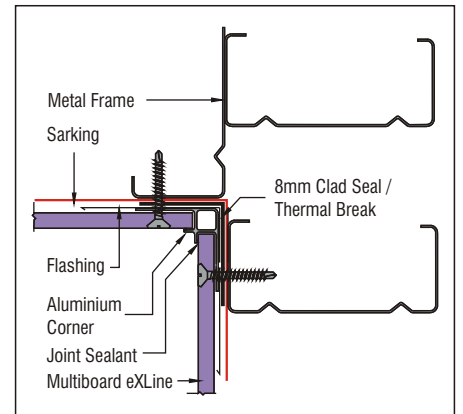


Figure 19 - Internal Aluminium Corner Detail

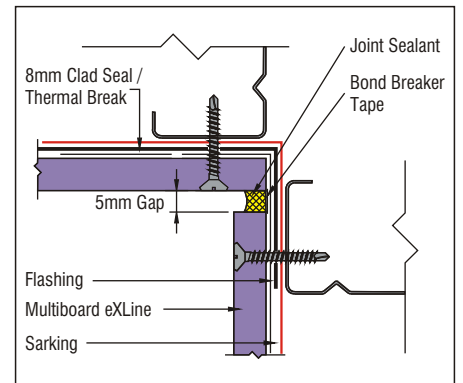


Figure 20 - Internal Sealant Fill Corner Detail

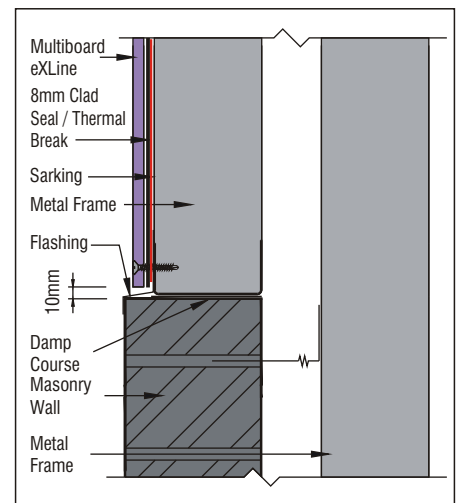


Figure 21 - Horizontal Junction Detail - Option 1

Cold Climates

eXLine is not designed to be in contact with snow for long periods of time. **eXLine** is not recommended for conditions of freeze/thaw.

Multiboard has been tested for resistance to frost in accordance with AS/NZS 2908.2 Clause 8.2.3.

Termite Protection

eXLine is termite resistant and will not be affected by this pest. Consideration must be made for selection of sub-frame and the possibility of termite ingress through other areas of the building construction

There are many ways for managing termite entry to buildings and selecting the appropriate method depends on various risk factors and the form of construction.

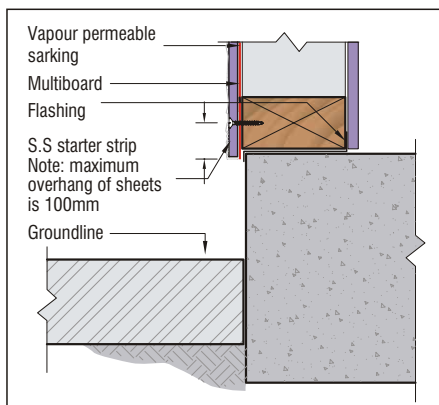
Further details can be obtained from the BCA, AS3660 or local building authorities.

Ground Clearance & Slab on Ground

When **eXLine** is installed as an external cladding on the ground floor, a 150mm minimum clearance must be provided between the earth on the exterior and **eXLine**.

Paved areas, such as driveways, paths steps etc., require a 50mm min clearance.

eXLine must overlap slab on ground and/or footings by a maximum overhang of 100mm.



HEALTH & SAFETY

eXLine is manufactured from woven glass fibre, recycled wood fibres (50%), magnesium cement, and additives which catalyse the cementing action. As manufactured, the product will not release airborne dust, however during drilling, and sanding operations glass fibres and fine dust may be released.

When using power saws in a confined space, dust extraction equipment is recommended to control dust levels. If power tools are used externally, wear an approved P1 or P2 dust mask, respirator and safety glasses.

No special safety precautions are necessary when handling or working with **eXLine**.

For further information refer to the **eXLine** Materials Safety Data Sheet, please refer to our website.

WARRANTY

eXLine (Multiboard) warrants for a period of ten (10) years ("the warranty period") from the date of purchase that all **eXLine** products ("the product") will be free from

defects due to faulty manufacture or materials, and will be resistant to cracking, rotting, fire and damage to the extent set out in Multiboard's published literature current at the time of installation, and strictly subject to the conditions set out below.

Nothing in this document shall exclude or modify any legal rights of any person under the Trade Practices Act or otherwise which cannot be excluded or modified at law.

Conditions of Warranty:

The Warranty is strictly subject to the following conditions:-

1. The product, and any other products including fasteners and joining systems, applied to or used in conjunction with the product must be used and installed strictly in accordance with the recommended installation methods at the time of installation.
2. Under no circumstances will Multiboard be liable for defects arising from:-
 - (a) A failure to use and/or install the product, or any products, strictly in accordance with the product manual.
 - (b) Defective materials not supplied by Multiboard; or
 - (c) Impact.
3. Multiboard will not be liable for breach of Warranty, and no breach of Warranty claim will be accepted, unless the Claimant makes a written claim and provides proof of purchase within 30 days of the alleged defect becoming apparent.
4. This Warranty is not transferable under any circumstances without the prior written consent of Multiboard.
5. A Claimant's sole remedy for breach of Warranty is (at Multiboard's option) that Multiboard will either replace or repair the defect, supply replacement product, or pay for the cost of replacement or rectification of the affected product.
6. Under no circumstances shall Multiboard be liable for any consequential loss, property damage or personal injury, economic loss or loss of profits, arising in Contract or negligence or howsoever arising. Without limiting the foregoing, Multiboard will not be liable for any claims, damages or defects arising from or in any way attributable to poor or defective workmanship, defective materials or poor design or detailing, settlement or structural movement and/or movement or materials to which the product is attached, incorrect design of the structure, acts of God including but not limited to earthquakes, cyclones, floods or other severe weather conditions or unusual climatic conditions, normal wear and tear, or growth of any organism on any product surface.
7. The express warranties set out above are in lieu of all other representations, warranties or conditions, express or implied including but not limited to implied warranties or conditions of merchantable quality and fitness for a particular purpose, and those arising by statute or otherwise in law or from a course of dealing or use of trade and which are excluded to the fullest extent permitted by law.

