SPECIFICATION

This data sheet covers the use of 6mm Hardie™Flex and Versilux® sheet in residential "box-framed" eaves and soffit lining applications over light-gauge steel or timber framing and must be read in conjunction with current James Hardie product literature, namely the "Eaves & Soffit Technical Specification" available from our website:

www.jameshardie.com.au/ContentfulCMS/Technical-Resource/Eaves_and_Soffits_Technical_Specifications

Sheets must be coated in accordance with the product literature.

Box-framed eaves are where trimmers are provided, spanning from the fascia to the external wall of the building as shown in **Figure 1**, with longitudinal trimmers at positions 'A' and 'B' such that the lining sheets are supported on all four sides in square or rectangular panels ('boxes'), allowing the sheet to span in both directions.

FRAMING & SHEET INSTALLATION

Install sheets to steel or timber trimmers as shown in **Figure 1** and in accordance with the trimmer and fastener spacing given in **Table 1** depending on the wind load classification or design pressure.

Most commonly, the required transverse trimmer spacing given in **Table 1** is neither modular with the roof truss spacing (likely to be 900mm) nor with the wall stud spacing (likely to be 450mm). And, since box-framed eaves are designed as plate structures needing to be supported and fixed to framing on all four edges, a "wall batten" needs to be fixed at position 'A' and similarly a "truss batten" needs to be fixed at position 'B' inside the fascia, either supported by hangers from the rafter or else bird-mouthed into the underside of the rafter. The trimmers are then appropriately fixed between these battens.

Framing width at sheet joints must be a minimum of 42mm for timber and 38mm for steel. Where the trimmers at sheet joints are less than this, provide double 35mm wide trimmers at sheet joints.

Battens 'A' and 'B' and intermediate support trimmers must be a minimum of 64 x 35mm deep for metal framing and 70 x 35mm for timber and fixed in accordance with the details in the Technical Specification.

Framing – Steel

The steel framing (minimum 64 x 35mm sections) must be in accordance with NCC 2022 Clause H1D6 Item (3). Studs, trimmers and battens shall be rolled steel sections not exceeding 2.0mm thickness.

Framing – Timber:

Use of timber framing must be in accordance with AS 1684: 2021 "Residential timber-framed construction" and framing manufacturer's specifications. Use seasoned timber or else unseasoned hardwood minimum F14 grade. LVL timber may be used.

Support at Fascia & Walls:

ALL SHEET EDGES AND JOINTS MUST BE SUPPORTED BY THE FRAMING. Cantilever edges are not permitted. The fascia board groove, if used, must therefore provide secure support along the outer edge, otherwise a batten must be provided in this position 'A' to support the trimmers.

Jointing:

HardieFlex and Versilux soffit sheets are normally jointed with a PVC straight jointing mould as shown in **Figure 3**, although butt joints may also be used as shown in **Figure 2**. Sheet joints must coincide with centre line of the trimmer or framing member (see Figures 2 and 3).

TABLE 1: Maximum Transverse Trimmer & Fastener Spacing for Wind Pressure to AS 4055 or Equivalent Pressure

Soffit Width (mm)	AS 4055 Wind Classification (Cyclonic)	Within 1200mm of External Building Corners			Elsewhere in Building		
		ULS Design Suction (kPa)	**Trimmer Spacing (mm)**	Fastener Spacing (mm) T = timber; S = steel	ULS Design Pressure (kPa)	**Trimmer Spacing (mm)**	Fastener Spacing (mm) T = timber; S = steel
Up to 600	C1	1.95	**750**	T 175 / S 200	-0.98 / +1.05	**1200**	T 300 / S 300
	C2	2.90	**600**	T 125 / S 125	-1.45 / +1.56	**1200**	T 200 / S 200
	C3	4.27	**450**	T 100 / S 100	-2.14 / +2.30	**600**	T 150 / S 150
	C4	5.77	**400**	T 100 / S 100	-2.88 / +3.11	**600**	T 100 / S 125
600 to 1200	C1	1.95	**600**	T 175 / S 200	-0.98 / +1.05	**900**	T 225 / S 225
	C2	2.90	**500**	T 150 / S 150	-1.45 / +1.56	**750**	T 175 / S 200
	C3	4.27	**450**	T 100 / S 125	-2.14 / +2.30	**600**	T 150 / S 175
	C4	5.77	**300**	T 100 / S 100	-2.88 / +3.11	**500**	T 125 / S 150

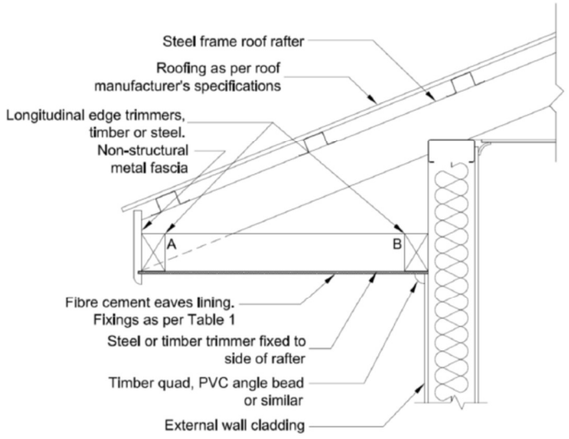

Figure 1: Box-Framed Eaves Detail

FIXING / FASTENERS

Fixings and fastener may be minimum Class 3 finish if concealed and/or sealed but must be Class 4 if exposed to the elements. The outer (edge) fasteners to trimmers must be positioned 50mm away from the fascia and external wall. Thereafter spacing must be as per **Table 1**.

Fasteners - Steel Framing:

30mm Buildex FibreTeks® screws or 32mm HardieDrive® screws.

Fasteners - Timber Framing:

2.8mm diameter x 30mm long galvanised fibre cement nails.

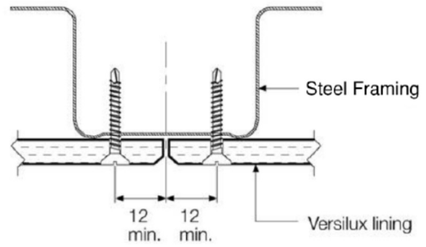

Figure 2: Butt Joint Fixing

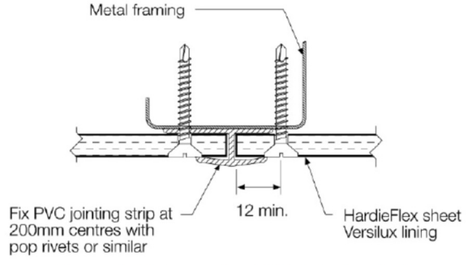

Figure 3: Fixing using PVC Jointing Strip

DETAILS & OTHER MATTERS

More extensive construction details and jointing details are provided in current James Hardie literature for HardieFlex and Versilux eaves linings. Refer also to the Warranty in that literature.

For further details on matters such as an appropriate weather barrier, flashing, system accessories and finishing, refer to current James Hardie technical literature for HardieFlex and Versilux eaves linings, the NCC or relevant Australian Standards.

Product Name

BOX-FRAMED EAVES LINING WITH 6mm HARDIE™FLEX & VERSILUX® SHEET

Product Description

6mm External Cladding for Eaves

Manufacturer's Details

James Hardie Australia Pty Ltd

10 Colquhoun Street, Rosehill NSW 2142

Design Criteria

[1] General

All design and construction must comply with the appropriate requirements of the current National Construction Code (NCC) and other applicable regulations and standards.

[2] Wind Loading

The box-framed eaves lining sheet must be fastened to the appropriate framing in accordance with **Table 1** for the different wind classifications, which are taken from AS 4055: 2021 "Wind Loads for Housing". The effective design wind speeds are given in Table 2.1 of AS 4055.

For design to AS/NZS 1170.2: 2021 "Part 2: Wind Actions", the Ultimate Limit State (ULS) design capacity of the system may be deduced from **Table 1**, noting that an ULS material capacity reduction factor ('phi') is implicitly included and no further factoring of the design capacity is needed.

Limitations

[1] HardieFlex and Versilux box-framed eaves lining sheets are designed as external cladding for residential use only. This cladding has been designed for external pressure and suction loadings only. **The designer must ensure that no internal pressure or suction arises from within the enclosed roof spaces otherwise an internal lining is required.**

[2] To use **Table 1**, the design must comply with the geometric limits given at Clause 1.2 of AS 4055: 2021 (eg max eaves height = 6m and maximum building width = 16m), except as varied by the design engineer.

[3] Fastening: Do not fix fasteners closer than 12mm from panel edges, or closer than 50mm from sheet corners.

Accepted for inclusion in Deemed to Comply Manual

DTCM drawing number: M/448/01

Notes covering basis of DTC (Relevant test reports etc)

The nominated structural capacity of the system is based on the following documentation:

[1] James Hardie Technical Submission "Redesign of James Hardie Internal or External Ceiling/Soffit Linings in Australia" Version 4 dated 10 July 2024, which references mechanical properties, structural calculations and any test reports relied upon.

[2] David Beneke Consulting letter of certification 2019-70-LO-103 Revision 1 dated 30 October 2024.

[3] Cyclone Structural Testing Station Report No.TS 471 dated 23 July 1996 "Static and Cyclic Uniform Loading of Hardiflex Cladding" and James Hardie letter to NT BASB dated 7 August 1996.

Checking Engineer

Name: DAVID BENEKE

Registration Number: IEAUST 62658

Date: 30 June 2025

Signature:

Must be an **Australian** registered structural engineer

Certifying Engineer

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Date: 3 December 2025

Signature:

Must be a registered structural engineer in the **Northern Territory**

Chairperson Signature:

Chairperson Name: Elisha Harris

Date of Approval: 30/04/2026 Expiry Date: 30/04/2031

Date approved 04 June 2025