

This product has been determined to satisfy NCC Performance Requirement H1P1 for structural resistance of materials and forms of construction in high wind areas

**SPECIFICATION**

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

<https://www.jameshardie.com.au/applications/eaves-soffits>

Sheets must be coated in accordance with the product literature.

**FRAMING & SHEET INSTALLATION**

Install sheets to steel or timber "rail framing" battens as shown in Figures 1, 2 and 3 and in accordance with the batten and fastener spacing given in **Table 1** or **Table 2** depending on the wind load classification or design pressure.

Framing width at sheet joints must be a minimum of 42mm for timber and 38mm for steel. Where the battens at sheet joints are less than this, provide double 35mm wide battens at sheet joints. Ensure that double battens are fastened together and flush at the outside face.

All intermediate support battens must be a minimum of 64 x 35mm deep for metal framing and 70 x 35mm for timber.

**Framing – Steel**

Steel wall frame (minimum 64 x 35mm studs) must be in accordance with NCC 2022 Clause H1D6 Item (3). Studs to be rolled steel sections not exceeding 2mm in 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.

**Jointing:**

HardieFlex and Versilux sheets are normally jointed with a PVC straight joint mould, although butt joints may also be used. Sheet joints must coincide with the centre line of the ceiling batten or framing member.

**Support at Fascia & Walls:**

Note [1]: In the absence of a grooved fascia board, provide the first batten within 150mm of the fascia. If fascia groove is used to provide support, then maximum span to first batten shall be 300mm in all cases and the maximum batten spacing thereafter as per Tables 1 & 2.

Note [2]: All longitudinal sheet edges (other than cantilever ends of 150mm permitted against walls or non-grooved fascias) and joints must be supported by framing. PVC jointer strips should be used to support the transverse sheet edges in preference to butt joints.

**TABLE 1: Maximum Batten & Fastener Spacing for Wind Pressure**

AS 4055 Wind Load Class	General Areas of Building			Within 1200mm of Building Edges		
	ULS Pressure (kPa)	Batten (mm)	Fasten (mm)	ULS Pressure (kPa)	Batten (mm)	Fasten (mm)
C1	-0.98 +1.05	600 or 450	200	-1.95	450 or 400	200
C2	-1.45 +1.56	600 or 450	200	-2.90	450 or 400	150
C3	-2.14 +2.30	450 or 400	200	-4.27	300	150
C4	-2.88 +3.11	450 or 400	150	-5.77	300	100

**TABLE 2: ULS Design Pressure Capacity**

Batten Spacing (mm)	Fastener Spacing (mm)	ULS Pressure (kPa) to Timber	ULS Pressure (kPa) to Steel
600	200	1.69	1.69
	100	1.95	1.95
450	200	2.38	2.44
	150	3.17	3.70
300	100	3.98	3.98
	200	3.57	4.16
	150	4.76	4.97
	100	7.14	7.14

**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. Use the following fasteners or approved equivalent fasteners:

**Fasteners - Steel Framing:**

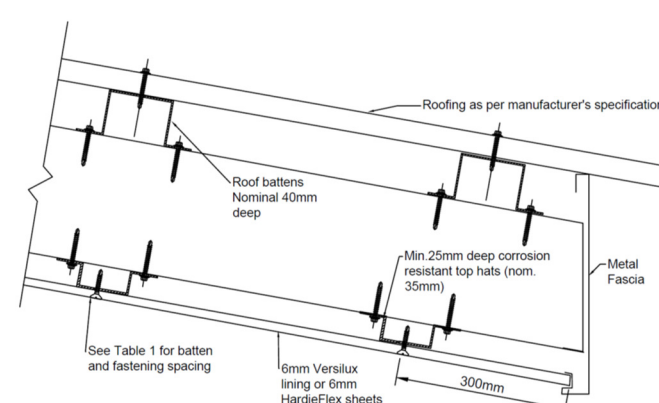
Use 30mm Buildex FibreTeks® screws or 32mm HardieDrive® screws.

**Fasteners - Timber Framing:**

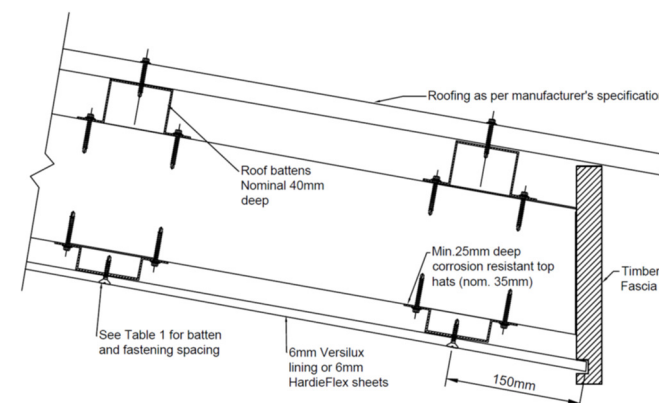
Use a 2.8 x 30mm galvanised fibre cement nail.

**DETAILS & OTHER MATTERS**

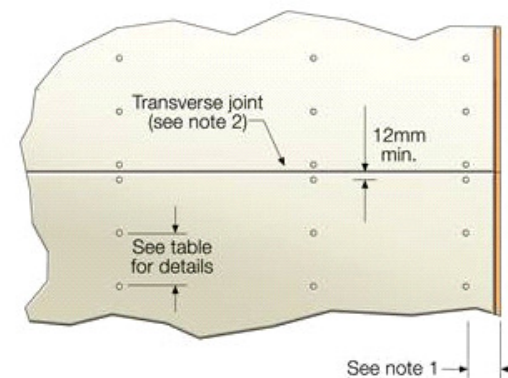
More extensive construction details and jointing details are provided in current James Hardie literature for HardieFlex and Versilux cladding available from our website. Refer also to the Warranty in that literature.



**Figure 1: Soffit / Eaves w Metal Fascia**



**Figure 2: Soffit / Eaves w Timber Fascia**



**Figure 3: Plan View of Eaves / Soffit Layout**

For further details on matters such as an appropriate weather barrier, a thermal break, flashing, system accessories and finishing, refer to current James Hardie technical literature (available from our website) for HardieFlex and Versilux cladding, the NCC or relevant Australian Standards.

Product Name

**RAKED EAVES & SOFFIT LINING WITH HARDIE™ FLEX & VERSILUX® SHEET**

Product Description

**External Cladding for Soffit Linings**

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 cladding sheet must be fastened to the frame 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: 2021.

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

Limitations

[1] Hardie™ Flex and Versilux® soffit 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: All fasteners specified must be driven flush. 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/452/01

Chairperson Signature:

Chairperson Name: Elisha Harris

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

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 for the Structural Certification of 6mm HardieFlex Sheet Used as External Cladding" Version 5 dated 2 June 2025, which references various test reports including Test Report TS004-20 dated 6 March 2020 and reports by Danenbergsons dated 13 April 1995 and Frick dated 30 June 1995.

[2] David Beneke Consulting letter of certification 2024-35-LO-57 (Revision 3) dated 2 June 2025 for 6mm HardieFlex cladding.

[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 regarding the outcome of testing cyclic versus static loading.

**Checking Engineer**

Name: DAVID BENEKE  
Registration Number: IEAUST 62658  
Date: 30 June 2025

Must be an Australian registered structural engineer

**Certifying Engineer**

Name: NAVID NIKJOO  
NT Registration Number: 341218 ES  
Date: 3 December 2025

Must be a registered structural engineer in the Northern Territory