

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

**GENERAL SPECIFICATION**

James Hardie fibre-cement (JHFC) claddings may be installed with a vented cavity created by fixing a layer of battens between the wall framing and the external cladding. These 70mm wide battens may be 19mm thick fibre-cement, or 20mm or 35mm thick timber sections, depending on depth of cavity required, the wind loading, and whether battens are fixed on-stud or off-stud.

Off-stud fixing of the battens may be used to avoid thermal bridging with steel-framed wall studs or to achieve better dimensional control over the jointing of the JHFC products, whether on steel or timber framed construction.

**SPECIFICATION: HARDIE™ CAVITY TRIM**

This data sheet covers the use of Hardie™ Cavity Batten in residential cavity façade applications over a timber or light-gauge steel wall frame and must be read in conjunction with current James Hardie literature for each product, namely:

- 6mm Hardie™Flex sheet cladding;
- 7.5mm Hardie™Tex sheet cladding;
- 7.5mm Hardie™Plank weatherboard cladding;
- 8mm Matrix™ sheet cladding;
- 8.5mm EasyLap™ Panel, Hardie™ Fine Texture Cladding and Hardie™ Brushed Concrete Cladding;
- 9mm Axon™ panel cladding;
- 9mm PrimeLine™ Heritage, Newport & Chamfer weatherboard cladding.
- 14mm STRIA™ weatherboard cladding;
- 16mm LINEA™ weatherboard cladding.

Refer to our website for further details:

<https://www.jameshardie.com.au/categories/cladding>

**FRAMING**

Install battens to wall framing as shown in **Figure 1** or **Figure 2** with maximum stud spacing taken from the appropriate design tables in the NT DTCM for each particular JHFC cladding.

**Framing – Steel (General)**

Steel framing must be in accordance with NCC 2022 Clause H1D6 Item (3). Studs shall be rolled steel sections not exceeding 2.0mm in thickness.

*Note: The minimum steel gauge permitted for fixing of cavity battens is 0.55mm in Grade G550, which would not be permitted in cyclonic areas.*

**Framing – Timber (General) & Timber Battens**

Timber framing (minimum 70 x 35mm studs) must be in accordance with AS 1684.3: 2021 “Residential timber-framed construction – Cyclonic areas” and framing manufacturer’s specifications. Use seasoned timber or else unseasoned hardwood minimum F14 grade. LVL timber may be used.

Timber cavity battens shall be minimum MGP10/JD5 grade.

**Framing – Noggings**

Install noggings in accordance with AS 1684.3: 2021. For off-stud fixing of battens, noggings have structural function. Two rows of noggings are required at maximum spacing of 900mm unless varied by the requirements of AS1720.1: 2010 or by special design\*.

**Special Framing Requirements:**

Additional framing is generally required at internal corners and sides of openings (refer to details in product literature).

**FIXING / FASTENERS**

Refer to the NT DTCM design data sheet for each particular JHFC cladding for the required fasteners for that product.

Fixings and fastener may be minimum Class 3 finish if concealed and/or sealed, but must be Class 4 if exposed to the elements.

**Fasteners – On-Stud Fixing of Battens**

Use 41mm HardiDrive® screws for fixing 19mm FC or 20mm deep timber battens to steel studs. Use 65 x 2.87mm Paslode RounDrive nails for fixing to timber studs. Deeper battens (35mm or 45mm) may be used, but require proportionately longer fasteners. Fasteners to be spaced as per **Table 1**.

**TABLE 1: On-Stud Batten Design & Fixing Requirements**

ULS Design Pressure (kPa)	Maximum Stud & Batten Spacing (mm)	Maximum Batten Fastener Spacing (mm)
2.4	600	300
5.2	600	200
5.8	450	200

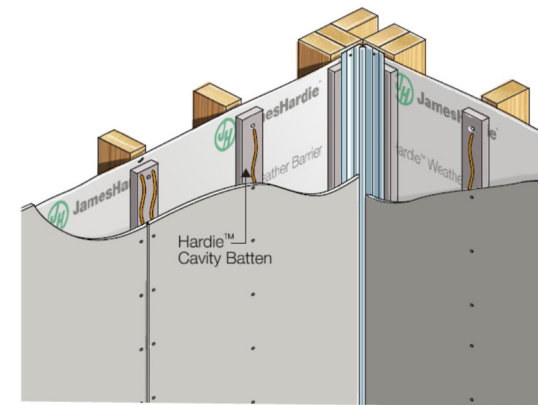
**Fasteners – Off-Stud Fixing of Battens**

Refer to **Table 2** for sizing of batten members and fasteners required to fix the battens to the noggings (equivalent classification from AS 4055: 2021 stated).

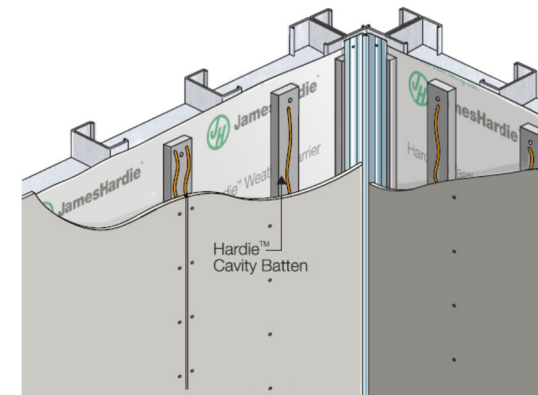
**TABLE 2: Off-Stud Batten Design & Fixing Requirements**

ULS Design Pressure (kPa)	Maximum Stud/ Batten Spacing (mm)	Fixing Batten to <b>TIMBER</b> Framing	Fixing Batten to <b>STEEL</b> Framing
<b>19 x 70mm FC Batten or 20 x 70mm Timber Batten</b>			
Up to 2.0 (C1 edge)	600	<b>1No</b> Paslode 65 x 2.87mm ring-shank nails	<b>2No</b> 41mm HardiDrive screws
	450	<b>1No</b> Paslode 65 x 2.87mm ring-shank nail	<b>1No</b> 41mm HardiDrive screw
2.1 – 2.9 (C2 edge)	450	<b>2No</b> Paslode 65 x 2.87mm ring-shank nails	<b>2No</b> 41mm HardiDrive screws
	<b>*35 x 70mm Timber Batten</b>		
Up to 2.0 (C1 edge)	600	<b>2No</b> Paslode 65 x 2.87mm ring-shank nails	<b>2No</b> Scrooz 14g x 75mm metal bugle batten screws
	450	<b>2No</b> Paslode 65 x 2.87mm ring-shank nail	<b>1No</b> Scrooz 14g x 75mm screw
2.1 to 2.9 (C2 edge)	600	<b>3No</b> Paslode 65 x 2.87mm ring-shank nails	<b>2No</b> Scrooz 14g x 75mm screws
	450	<b>2No</b> Paslode 65 x 2.87mm ring-shank nails	<b>2No</b> Scrooz 14g x 75mm screws

\*Note: By **special design** the 35 x 70mm timber batten is able to provide a pressure capacity beyond 2.9kPa (ie C2 wind classification) and is able to allow installation of a single row of mid-height noggings spaced up to 1350mm apart. Contact James Hardie for further information in this regard.



**Figure 1: On-Stud Batten Fixing for Timber Framing**



**Figure 2: Off-Stud Batten Fixing for Steel Framing**

**DETAILS & OTHER MATTERS**

More extensive construction details and jointing details are provided in current James Hardie installation literature for each product. Refer also to the Warranty for the particular system in that literature.

For further details on matters such as a thermal break, an appropriate weather membrane (eg “sarking”), flashing, system accessories and finishing, refer to current James Hardie technical literature for each product, the NCC or relevant Australian Standards.

**Appropriate Weather Membrane (Non-Structural):**

Quoting from the James Hardie literature: “A suitable water control membrane must be installed under James Hardie cladding in accordance with the AS/NZS 4200.2: 2017 ‘Pliable building membranes and underlays – Installation’ and NCC requirements. The Hardie™Wrap weather barrier has been tested and certified for use in climate zones 2 to 8 within Australia and is a Class 4 vapour permeable membrane that delivers a triple-shield of protection to help against external weather penetration, internal condensation management and external heat penetration through its safe-glare reflective layer.”

Product Name

**HARDIE™ CAVITY BATTEN**

Product Description

**19mm & 35mm Cavity Battens for Steel & Timber Framing**

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 James Hardie cladding sheet or weatherboard must be fastened to the frame battens in accordance with the design tables given in the approved DTCM design data sheet for each product based on the wind classifications of 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: 2021 Part 2 “Wind Actions”, the ULS design capacity for each cladding system is given in the design tables on the DTCM design data sheet for each product”.

Limitations

[1] James Hardie fibre-cement (JHFC) products covered by this data sheet are designed as external wall cladding for residential use only. These claddings have been designed for external pressure and suction loadings only. The designer must ensure that the framing is capable of resisting simultaneously the internal and external design pressures.  
**An internal lining is required.**

[2] For off-stud fixing of cavity battens, the maximum vertical spacing of the noggings, thus the maximum span of battens, shall be 900mm, generally thus two rows of noggings for 2.4m and 2.7m wall heights.

**[3] Fasteners: All fasteners specified must be driven flush.**

**Accepted for inclusion in Deemed to Comply Manual**

DTCM drawing number: M/446/01

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 Structural Certification of Fibre-Cement & Timber Cavity Battens Used on-Stud & Off-Stud with External Cladding” (Third Edition) dated 28 May 2025 and Addendum No.1 for NT DTCM Designs (Second Edition) dated 30 July 2025, which reference various test reports and design calculations.

[2] David Beneke Consulting letter of certification 2024-41-LO-32 Revision 2 dated 2 June 2025.

[3] James Hardie Test Report TS046-05 OFF-STUD “Uniformly Distributed Load Testing of Horizontal Groove Panel (Scyon™ Stria™) in Accordance with ASTM E72-98” dated 26 October 2007 supplemented by Test Report TS031-10 dated 20 August 2010.

[4] James Hardie Test Report TS014-21 (timber framing), Test Report TS015-21 (0.75mm gauge steel framing) and Test Report TS029-23 (0.55mm gauge steel framing), all on off-stud fixing of cavity battens.

**Checking Engineer**

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

Signature: Must be an Australian registered structural engineer

**Certifying Engineer**

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

Signature: Must be a registered structural engineer in the Northern Territory