

# TECHNICAL SUPPLEMENT

JAMES HARDIE EXTERNAL BUILDING PRODUCTS

## Alternate product solutions to eaves and soffits

### INTRODUCTION

James Hardie® manufactures a range of versatile external cladding building products. This technical supplement outlines their use in an eaves and soffit application within the limits of AS 4055 'Wind Loads for Housing'.

### SCOPE AND APPLICATION

This Technical Supplement is intended for use by architects, designers and specifiers who may be involved with the specification of James Hardie external cladding in an eaves and soffit application in residential dwellings.

A number of techniques can be used to construct eaves and soffits on a residential dwelling:

- Boxed eaves
- Simple spanning eaves
- Raked eaves
- Soffit (flat only and not raked)

The following James Hardie external cladding may be used:

- Scyon™ AXON™ cladding
- Scyon™ MATRIX™ cladding
- PrimeLine® cladding
- HardiPlank® cladding
- PanelClad® TextureLine cladding

All design tables in this technical supplement have been certified by Cardno (NSW) Pty Ltd.

This Technical Supplement must be read in conjunction with the current James Hardie Eaves and Soffits Technical Specification and current relevant James Hardie product installation instructions.

The specifier or other party responsible for the project must ensure that details in this specification are appropriate for the intended application and additional detailing is performed for specific design or any areas that fall outside the scope and specifications of this technical supplement and related documents.

Additional installation information, warranties and warnings are available at [www.jameshardie.com.au](http://www.jameshardie.com.au) or Ask™ James Hardie on 13 11 03

### FRAMING

All the outlined James Hardie external claddings can be fixed to either seasoned timber or light gauge domestic type steel framing, 0.55 to 1.6mm base metal thickness (BMT). The framing used must comply with the relevant building regulations and standards and the requirements of the current relevant product installation instructions.

For further framing requirements for each James Hardie product outlined in this technical supplement, refer to the framing section in the current technical product literature.

### NOTE

For Scyon™ Matrix™ cladding, the Matrix panels must be installed to the Scyon™ cavity trim which is fixed using the on stud fixing method only.

### JOINTING

For PrimeLine®, HardiPlank® and PanelClad® TextureLine cladding only on-frame jointing is recommended.

To maximise the eaves and soffit strength, integrity and appearance, joins between cladding must be staggered over two or more framing members.

### FASTENERS

For information on fasteners including their durability, spacing's, size and type, refer to the fixing/fastener section of the relevant current product installation instruction.

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The following tables provide framing and fastener spacing information for various eave and soffit options. For additional information on fasteners including edge distances and types of fasteners, refer to the current technical product literature.

**TABLE 1**

| PRIMELINE® CLADDING USED AS AN EAVES/SOFFIT LINING |  |                              |   |                              |
|--|--|------------------------------|---|------------------------------|
| AS 4055 WIND CLASSIFICATION                        | PRIMELINE® HERITAGE AND CHAMFER CLADDING |                              | PRIMELINE® SUMMIT AND NEWPORT CLADDING  |                              |
|  | Fasteners per cladding per trimmer (mm)  | Maximum trimmer spacing (mm) | Fasteners per cladding per trimmer (mm) | Maximum trimmer spacing (mm) |
| N1, N2, N3   | 1  | 600                          | 1                                       | 600                          |
| C1   | 1  | 450                          | 1                                       | 450                          |
| N4 / C2  | 2 <sup>[1]</sup>                         | 450                          | 1                                       | 450                          |
| N5 / C3  | 2 <sup>[1]</sup>                         | 300                          | 1                                       | 300                          |
| N6 / C4  | 2 <sup>[1]</sup>                         | 300                          | 1                                       | 300                          |

**NOTE**

1. The second fastener is required at the centre of the cladding, refer to the External Cladding Technical Specification for more information.

**TABLE 2**

| HARDIPLANK® CLADDING USED AS AN EAVES/SOFFIT LINING |   |                              |   |                              |
|---|---|------------------------------|---|------------------------------|
| AS 4055 WIND CLASSIFICATION                         | 300mm WIDTH ONLY                        |                              | WIDTHS UP TO 230mm                      |                              |
|   | Fasteners per cladding per trimmer (mm) | Maximum trimmer spacing (mm) | Fasteners per cladding per trimmer (mm) | Maximum trimmer spacing (mm) |
| N1, N2, N3  | One through overlap                     | 600                          | One through overlap                     | 600                          |
| C1  | One through overlap                     | 450                          | One through overlap                     | 450                          |
| N4 / C2   | N/A                                     | N/A                          | One through overlap                     | 450                          |
| N5 / C3   | N/A                                     | N/A                          | One through overlap                     | 300                          |
| N6 / C4   | N/A                                     | N/A                          | One through overlap <sup>[2]</sup>      | 300 <sup>[2]</sup>           |

**NOTES**

1. Screw fasteners into steel frames are to be fixed just above lap, see figure 24 of the current External Cladding Technical Specification for more information.
2. Use only 170mm or 205mm wide HardiPlank cladding in N6/C4 wind classification.

**TABLE 3**

| PANELCLAD® TEXTURELINE SHEET USED AS AN EAVES/SOFFIT LINING |                              |                              |
|---|------------------------------|------------------------------|
| AS 4055 WIND CLASSIFICATION                                 | MAXIMUM TRIMMER SPACING (mm) | MAXIMUM TRIMMER SPACING (mm) |
| N1  | 500                          | 300                          |
| N2  | 500                          | 300                          |
| N3 / C1   | 450                          | 300                          |
| N4 / C2   | 400                          | 150                          |
| N5 / C3   | 300                          | 200                          |
| N6 / C4   | 300                          | 100                          |

**NOTES**

1. The recessed edges of the PanelClad TextureLine sheets use the special TextureLine PVC straight jointer, refer to Figure 8 of the current External cladding Technical specification for more information.
2. All PanelClad TextureLine sheet edges must be fully supported.

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TABLE 4

**DESIGNS FOR SCYON™ AXON™ CLADDING USED AS AN EAVES/SOFFIT LINING**

| AS 4055 WIND CLASSIFICATION                      |          |                              |                              |
|--|----------|------------------------------|------------------------------|
| Non-Cyclonic                                     | Cyclonic | Maximum trimmer spacing (mm) | Maximum trimmer spacing (mm) |
| <b>ALL SPECIFIED FASTENERS EXCEPT BRAD NAILS</b> |          |                              |                              |
| N1, N2, N3                                       | C1       | 600                          | 200                          |
| N4   | C2       | 400                          | 200                          |
| N5, N6   | C3/C4    | 300                          | 150                          |
| <b>BRAD NAILS ONLY</b>                           |          |                              |                              |
| N1, N2, N3                                       | C1       | 600                          | 150                          |
| N4   | C2       | N/A                          | N/A                          |
| N5.N6  | C3, C4   | N/A                          | N/A                          |

**NOTE**

1. All Scyon™ Axon™ sheet edges must be fully supported.

TABLE 5

**DESIGNS FOR SCYON™ MATRIX™ CLADDING USED AS AN EAVES/SOFFIT LINING**

| AS 4055 WIND CLASSIFICATION                      |          | TRIMMER SPACING (mm) | SCYON™ CAVITY TRIM FASTENER SPACING (mm) | MATRIX PANEL FASTENER SPACING (mm) |
|--|----------|----------------------|--|------------------------------------|
| Non-Cyclonic                                     | Cyclonic | All areas            | All areas                                | All areas                          |
| <b>ALL SPECIFIED FASTENERS EXCEPT BRAD NAILS</b> |          |                      |  |                                    |
| N1, N2, N3                                       | C1       | 600                  | 300                                      | 200                                |
| N4   | C2       | 600                  | 200                                      | 200                                |
| N5, N6   | C3/C4    | 400                  | 200                                      | 150                                |
| <b>BRAD NAILS ONLY</b>                           |          |                      |  |                                    |
| N1, N2, N3                                       | C1       | 600                  | 300                                      | 200                                |
| N4   | C2       | N/A                  | N/A                                      | N/A                                |
| N5.N6  | C3, C4   | N/A                  | N/A                                      | N/A                                |

**NOTE**

The Matrix panels must be installed using Scyon™ cavity trim. The Scyon™ cavity trim must be fixed along the trimmers only and not across the trimmers. Do not fasten the Scyon™ cavity trim within 30mm of the ends and within 20mm of the edges.

For further information on coastal restrictions, finish and maintenance requirements refer to the current relevant product installation instructions and current eaves and soffits technical literature.

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