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TECHNICAL SUPPLEMENT

Alternate Product Solutions to Eaves and Soffits

JAMES HARDIE EXTERNAL BUILDING PRODUCTS

The information in this supplement and James Hardie's technical literature is only intended for use in relation to the relevant James Hardie products.

CERTIFIED ACCEL CONTENT

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™ Stria™ cladding
- Scyon™ Axon™ cladding
- Scyon™ Matrix™ cladding
- PrimeLine® cladding
- EasyLapTM Panel
- 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 & 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.

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.
Products installed in an eave and soffit must not be fixed directly to a truss. Trusses must be battened before installing the lining.

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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www.accel.com.au

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 LININGS

AS 4055 Wind Classification	PrimeLine® Heritage & Chamfer cladding		PrimeLine® Summit & 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[1]	450	1	450
N5 / C3	2[1]	300	1	300
N6 / C4	2[1]	300	1	300

Notes to table 1:
1. The second fastener is required at the centre of the cladding; referto the External Cladding Technical Specification for more information.

TABLE 2: HARDIPLANK® CLADDING USED AS AN EAVES/SOFFIT LININGS

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[2]	300[2]

Notes to table 2:
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 LININGS

AS 4055 Wind Classification	Maximum Trimmer Spacing (mm)	Maximum Fastener 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 to table 3:
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.

TABLE 4: DESIGNS FOR SCYON™ AXON™ CLADDING USED AS AN EAVES/SOFFIT LININGS

AS 4055 Wind Classification			
Non-Cyclonic	Cyclonic	Maximum Trimmer Spacing (mm)	Maximum Fastener Spacing (mm)
ALL SPECIFIED FASTENERS EXCEPT BRAD NAILS			
N1, N2, N3	C1	600	200
N4	C2	400	200
N5, N6	C3/C4	300	150
BRAD NAILS ONLY			
N1, N2, N3	C1	600	150
N4	C2	N/A	N/A
N5.N6	C3, C4	N/A	N/A

Notes to table 4:
1. All Scyon™ Axon sheet edges must be fully supported.

TABLE 5: DESIGNS FOR SCYON™ MATRIX™ CLADDING USED AS AN EAVES/SOFFIT LININGS				
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
ALL SPECIFIED FASTENERS EXCEPT BRAD NAILS				
N1, N2, N3	C1	600	300	200
N4	C2	600	200	200
N5, N6	C3/C4	400	200	150

Note to table 5:
1. The Matrix panels must be installed to the 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.
2. Brad nails must not be used to fix the Matrix panels to the cavity trim, in a soffit application.

TABLE 6: SCYON STRIA™ USED AS AN EAVES/SOFFIT LININGS					
AS 4055 Wind Classification		**Within 1200 mm of external building Corners**		**Elsewhere in Building**	
Non-Cyclonic	**Cyclonic**	**Trimmer Spacing (mm)**	**Fasteners per cladding per trimmer (mm) FACE FIXING ONLY**	**Trimmer Spacing (mm)**	**Fasteners per cladding per trimmer (mm) FACE FIXING ONLY**
N1, N2, N3	C1	600	1	600	1
N4	C2	450	1	600	1
N5, N6	C3, C4	300	2[1]	450	2[1]

Note to table 6:
1. The second fastener is required at the centre of the cladding; refer to the Stria™ Cladding Installation Manual for more information.

TABLE 7: DESIGNS FOR EASYLAP™ PANEL CLADDING USED AS AN EAVES/SOFFIT LININGS			
AS 4055 Wind Classification			
Non-Cyclonic	Cyclonic	Maximum Trimmer Spacing (mm)	Maximum Fastener Spacing (mm)
N1, N2, N3	C1	600	150
N4	C2	400	150
N5, N6	C3/C4	300	100

Note to table 7:
1. Countersunk option is not a recommended for use in Eaves and Soffits
2. All sheet edges are to be supported.

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.

Additional installation information, warranties, and warnings are available at www.jameshardie.com.au or Ask™ James Hardie on 13 11 03