Stramit

SHARPLINE® ROOF AND WALL CLADDING

TECHNICAL MANUAL

stramit.com.au

Part of Fletcher Building

PURPOSE OF THIS DOCUMENT

This manual has been created to provide detail on the purpose, uses and correct installation of Stramit's SharpLine® product. Adherence to the details in this manual is critical to ensure that the products are compliant with the applicable regulations. Content in this manual is subject to change at any time without notice and is subject to any notices or disclaimers set out in this manual. Refer to *stramit.com.au* for the latest version of this document.

IMPORTANT NOTICE AND DISCLAIMER

The information contained within this manual is for general use and information only. While every precaution has been taken in the preparation of this document, Stramit assumes no responsibility for errors, omissions or damages resulting from the use of information contained in this document. Before application in a particular situation, you must obtain appropriate independent qualified expert advice confirming the suitability of product(s) and information in question for the application proposed. In no event will Stramit be liable for any loss of profit or any other loss or damage caused or alleged to have been caused directly or indirectly as a result of any person relying upon any information contained in this document.

AUSTRALIAN MADE

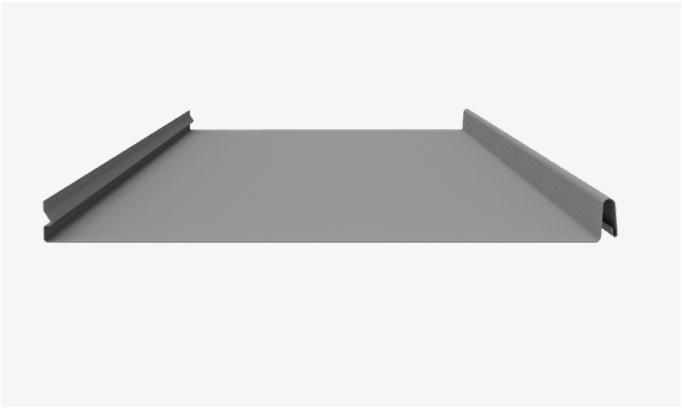
We are a proud Australian Made licensee, dedicated to supporting local industry and craftsmanship.

Our SharpLine® Architectural Cladding is designed and manufactured in Australia, for Australians and to withstand the unique Australian conditions.

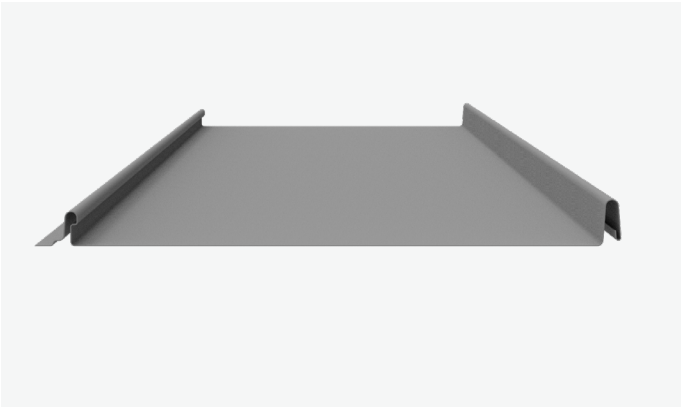
SELECTION AND SPECIFICATION

A striking profile with tall, sharp ribs, flat pans, and flexible design options.

SHARPLINE® CLIP FIX CLADDING



SHARPLINE® DIRECT FIX CLADDING



FEATURES (COMMON ACROSS BOTH PROFILES)

- Visually striking with tall, sharp ribs and narrow pans.
- Available in 25mm and 38mm rib heights.
- 8 different tray widths are available to provide a range of design options.
- Available in standard and matt COLORBOND® steel colours, as well as Unicote® Lux.
- Manufactured from non-combustible materials.
- 3° minimum pitch to suit most traditional roofing applications.
- Fully tested and NCC compliant with a full range of load performance data tables to suit most applications.
- Proudly Australian Made.

SharpLine® cladding is only intended for use in commercial, industrial, residential roof or wall cladding applications. Do not use for any other purpose.

APPLICATIONS

Part of Stramit's premier Architectural range, SharpLine® cladding can be installed horizontally, vertically or diagonally to suit the architectural requirements of the project.

Two fixing systems to enhance buildability and a variety of finishes make SharpLine® cladding an easy choice for architectural cladding.

The SharpLine® clip must be installed with care using flat headed screws. If the screw is not installed straight causing the head to protrude, or if the next sheet is pressed down too hard, visible marking may result at the screw locations.

SELECTION AND SPECIFICATION

MATERIALS

Stramit's SharpLine® cladding is manufactured from G300 colour coated steel, aluminium-zinc-magnesium or zinc-aluminium alloy coated steel. In some locations severe environment colour-coated steel may be available by arrangement.

Colour-coated steels are in accordance with AS/NZS 2728:2013 - Type 4 and, for the substrate, with AS 1397:2021. Aluminium-zinc-magnesium alloy coated AM100/AM125, zinc-aluminium alloy coated AZ150 conforms to AS 1397:2021. Stramit has a comprehensive range of colours as standard. Ask your nearest Stramit location for colour availability.

SHARPLINE® CLADDING COLORBOND® XRW 0.55mm BMT – SHEETING MASS (kg/m² OF ROOF AREA)			
Fixing	**Rib Height**	Cover	Mass
Clip	25	320	5.56
	25	520	5.13
	38	285	6.25
	38	485	5.50
Direct	25	290	6.14
	25	490	5.45
	38	265	6.72
	38	465	5.74

ADVERSE CONDITIONS

SharpLine® roof and wall cladding will give excellent durability in almost all locations. It is however important to choose the correct coating for each application environment as shown in the table below. Durability recommendations do vary based on the application of the product, in roofing or walling installations.

The table below shows the suitability of coating types for different exposure conditions.

Suitability of coating type for site exposure conditions	Roof sheeting Distance from		Wall cladding Distance from	
	breaking surf/ exposed marine	calm marine	breaking surf/ exposed marine	calm marine
COLORBOND® Classic/Matt	>200m	>0m	>800m	>200m
COLORBOND® Ultra steel	>100m	>0m	>500m	>100m
Unicote® Lux	Suitable for atmospheric classifications C1 - C3			

The suitability and exposure tables above are current at the time of publication and are guidelines only; conditions will vary from site to site. Please check the BlueScope Technical Bulletins at *bluescopesteel.com.au* for the latest information and guidance on selection, maintenance and durability of COLORBOND® steel and *unicote.com.au* for information on UniCote® Lux.

If uncertain about the appropriate coating for a particular application, or if the product is to be used in environments affected by industrial emissions, fossil fuel combustion, animal farming, or has unwashed areas, please contact your nearest Stramit office for advice.

COMPATIBILITY

All building products need to be checked for compatibility with adjacent materials. These checks need to be for both direct contact between materials, and where water runs from one material to another. The following guidelines generally avoid material incompatibility:

- For zinc-aluminium alloy coated steel, colour coated steel and galvanised steel roofs avoid copper, lead, green or treated timber, stainless steel, uncoated steel and mortar or concrete.

Refer to AS 1562.1:2018 or HB39 for more detail.

TESTING

Stramit has in-house, purpose built, air-box testing equipment used to design, develop and improve products for the Australian market. In addition, many Stramit products are tested by independent organisations.
This ongoing research and development activity ensures that Stramit remains at the forefront of innovation, design and consumer information.

ARCHITECTURAL SPECIFICATION

This specification can be found on the Stramit website and can be easily downloaded onto your documentation.

The roofing/walling to be 0.55mm BMT Stramit SharpLine® cladding in continuous lengths with 25 or 38mm high ribs and flat trays spaced at specified centres to suit clip or direct fixing methods.

Sheeting material to be protected steel sheet to Australian Standard AS 1397, with a minimum yield stress of 300MPa (Grade G300) and an AM100/AZ150 coating with an oven-baked paint film of selected colour, or a plain AM125/AZ150 coating.

The sheeting to be fixed to the purlins/girts in accordance with the manufacturer's literature. Suitable fixing screws in accordance with Australian Standard AS 3566, suitable for minimum corrosivity category 3, must be used at every support.

Sheets to be laid in such a manner that the approved side lap faces away from the prevailing weather.

A minimum of 50mm to be provided for projection into eave gutters. Flashings to be supplied in compatible materials as specified; minimum cover of flashing to be 150mm.

All sheeting to be fixed in a workman-like manner, leaving the job clean and weathertight.

All debris (nuts, screws, cuttings, filings etc.) to be cleaned off daily.

OIL CANNING

OIL CANNING

Wide flat profiles may be subject to “oil canning”, a perceived waviness in the material. This may happen in any wide, flat profiles or with thinner gauges and is usually an aesthetic issue only, with the structural performance not being affected.

There are a number of potential causes of oil canning. Since many uncontrollable factors are involved, no coil manufacturer or roll former can realistically assure the total elimination of oil canning.

These causes include:

- the metal coil production.
- roll forming panel fabrication.
- the gauge and profile of the product.
- storage and handling of the product.
- the nature of the structure that the product is attached to.
- installation processes.

With careful attention to the production and selection of material, to the panel design and installation practice, oil canning can be effectively minimised.

To minimise the appearance of oil canning, use narrower profiles, lighter colours in matt finishes, ensure the sub structure is in a flat plane and fasteners are installed correctly.

METAL COIL PRODUCTION

It is possible that coil manufacturing by our upstream distributors contributes to the possibility of oil canning. The manufacturing process can cause residual stress to be retained in the product (which may be caused by the slitting or forming processes). Please refer to BlueScope’s website for more details.

ROLL FORMING PANEL FABRICATION

During certain forming operations, new residual stresses can develop. Architectural panel profiles usually need more forming along the edges compared to the middle of the sheet and often more on one side than the other. This necessitates starting the forming process along the sides.

GUAGE AND PROFILE OF THE PRODUCT

The colour and finish of the material chosen will also affect the oil canning in the profile. Profiles of a dark colour, gloss finishes and wider profiles make oil canning more obvious to the eye.

STORAGE AND HANDLING

Care needs to be taken when storing and handling the product. Any twist in the panels can have an effect on the appearance of oil canning.

INSTALLATION AND STRUCTURE

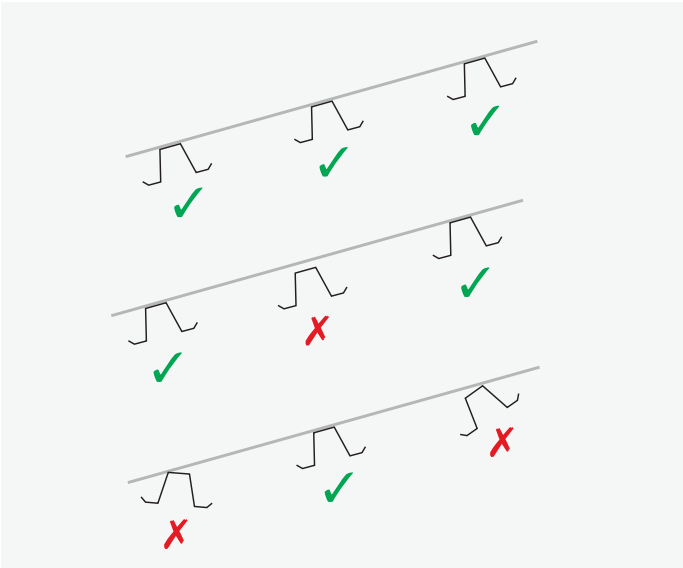
A key factor in minimising oil canning is ensuring that it is installed correctly and attached to a structure / sub structure that meets the relevant specifications. Should the substrate not be flat, deflection can occur.

Further, care must be taken to not over tighten the screw fixes, causing undue tension.

REDUCING THE POSSIBILITY OF OIL CANNING

The following points give guidance on how to reduce the possibility of oil canning.

- Only use the narrower profiles.
- Use thicker gauges of metal.
- Use lighter colours in matt finishes. Darker colours absorb more heat, also any waviness of the material shows up more clearly.
- Sheets must be stored and handled carefully. Any bend caused could leave permanent bow or camber at points and this could result in oil canning.
- Curving the sheet along its length is not permitted. Curving across the pans is possible but extra care is needed to have proper supports that minimise any distortion of the sheet.
- The substructure must be in one plane, both flat and square. Even a small undulation can cause visual oil canning. This may require the installation of a special support system that is flat and square.
- If using batten supports directly under the sheeting, ensure they are straight, the top is parallel to the sheeting and all are at the same level. There must be no rotation of the battens. Thicker steel battens are generally straight, timber battens can at times be warped.



OIL CANNING

- Along the length of the battens there must be no dip or hump as this would cause curving across the sheet and increase the risk of oil canning.
- If plywood is used under the sheeting, the same requirement for a flat plane applies.
- The use of insulation blanket directly under the sheet can cause an upward camber in the wide flat pan which may reduce the risk of oil canning in some instances.
- A small length of thick foam tape can be fixed to the batten under each pan to push it outward again causing a camber in the pan and reducing the risk.
- In many cases the oil canning is related to the expansion and contraction of the sheeting, this would mean at various times during the day the waviness can change. Even the light conditions can affect the visual impact.
- When using a direct fixed product, wherever possible the fastener should be installed in the punched slot on the edge to allow for free movement of sheeting.
- Overtightening the fasteners could create stresses leading to visual distortions.
- Special care must be taken around openings, corners and where the flashing is attached or sheeting is cut, to ensure a good finish.

Steeply sloped roofs, roofs seen through an upper storey vantage point and walls are more visible; care would need to be taken to minimise the causes that could result in oil canning being apparent.

If you are not experienced in using products that may be subject to oil canning, you must discuss their selection, use and installation with our representatives prior to ordering product.

Unless specific tolerances have been incorporated into contract documents, accepted by the panel provider and panel manufacturer and reasonable precautions have been taken, Stramit will not accept oil canning as a grounds for panel rejection.

DESIGN DATA

NCC COMPLIANCE

NCC Compliance - Roof & Wall Sheeting

Volume 1 Class 2 to 9 Buildings

Requirements B1P1 and B1P2 are satisfied by complying with B1D4(j)(iv) and Australian Standard AS 1562.1.

Non-combustibility - C2D10(5)(b) for unpainted steel and C2D10(6)(e) for painted steel with spread of flame index 0 is deemed non-combustible.

F3P1 is satisfied by F3D2(b), F3D5(1)(c) and compliance to Australian Standard AS1562.1.

Volume 2 Class 1 and 10a Buildings and Housing Provisions Standard

Requirement H1P1 is satisfied by complying with H1D7(2)(a) or H1D7(2)(c),H1D7(5) and AS1562.1.

Non-combustibility – H3D2(e) with painted steel and spread of flame index 0 is deemed non-combustible.

SPAN TABLES

Stramit tests to Australian Standard AS 1562.1:2018 and in accordance with the National Construction Code 2022 provides span load tables. The data in this manual is for non-cyclonic areas of Australia only. For use in cyclonic areas refer to the "Cyclonic Areas Roof and Wall Cladding Supplement" on the Stramit website.

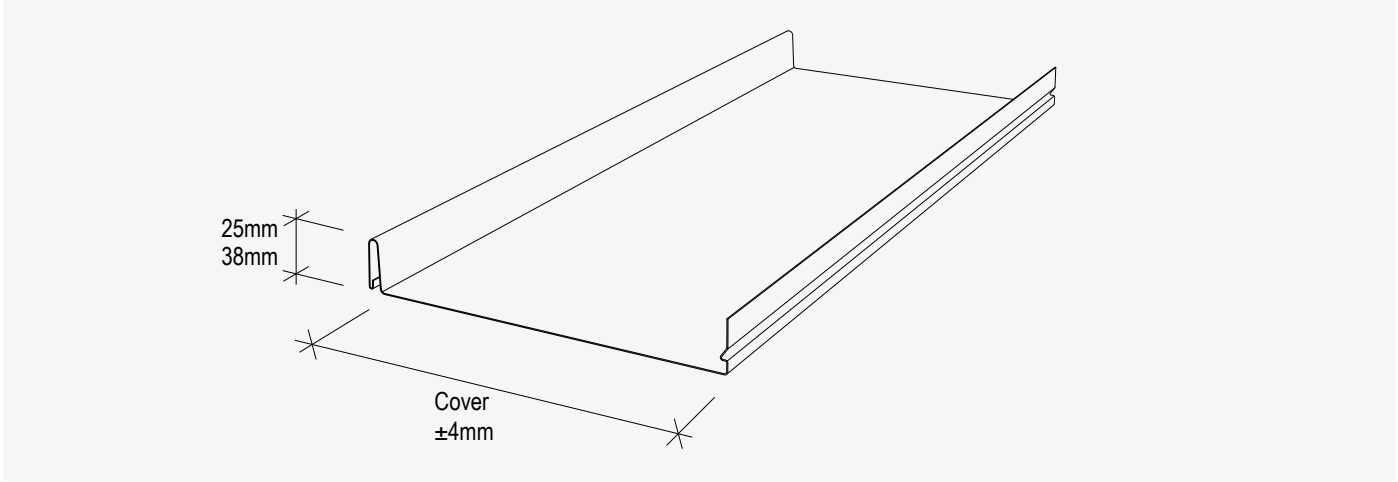
The spans shown on the next page are based on the direct pressure testing method described in the current version of AS 1562.1:2018 and take account of foot traffic and wind resistance including local pressure zone effects.

Pressures are based on AS 4055:2021 or AS/NZS 1170.2:2021. Where the two standards differ, the worst case has been taken for each classification.

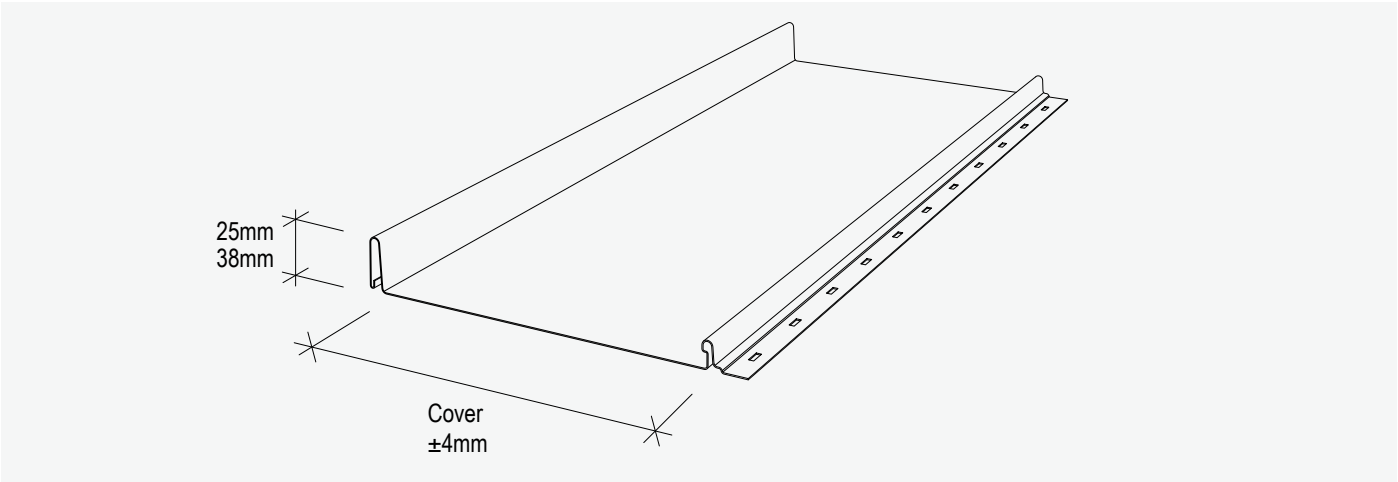
Data on next page applies to buildings with dimension limits given in AS 4055:2021, 7m or less in average height, 16m max width and length less than 5 times the width, where both length and width exceed the building height and site is unaffected by land topography. Maximum roof pitch 35°. *Refer to AS 4055:2021 for more detail.*

Designs for the most popular profiles are shown in table on next page.

Clip Fix Profile Dimensions



Direct Fix Profile Dimensions



DESIGN DATA

SHARPLINE® CLADDING - MAXIMUM SPAN CHART (mm)												
			roofs - all areas unless noted *				walls				overhangs	
style	rib height (mm)	cover (mm)	pressure (kPa) strength	double spans	equal spans	internal (end) span combination	pressure (kPa) strength	double spans	equal spans	internal (end) span combination	free edge	stiffened edge
N1r or Region A (TC3, FS)							N1w or Region A (TC3, FS)					
Direct fix	25	290	1.81	600	600	900(600)	0.94	1200	1200	1200(950)	50	150
		490		450+	450+	450(350)+		600	600	600(450)	50	50
	38	265		600	600	900(600)		1200	1200	1200(950)	50	150
		465		450+	450+	450(350)+		600	600	600(450)	50	50
Clip fix	25	320	1.81	600++	600++	900(600)++	0.94	1200	1200	1200(950)	50	150
		520		450+	450+	450(350)+		600	600	600(450)	50	50
	38	285		600	600	900(600)		1200	1200	1200(950)	50	150
		485		450+	450+	450(350)+		600	600	600(450)	50	50
N2r or Region B1 (TC3, FS) or Region A (TC2.5,PS)							N2w or Region B1 (TC3, FS) or Region A (TC2.5,PS)					
Direct fix	25	290	1.73	600*	600*	900(600)*	1.30	1200	1200	1200(950)	50	150
			2.51	600	600	800(600)						
		490	2.51	450+	450+	450(350)+		600	600	600(450)	50	50
	38	265	2.51	600	600	900(600)		1200	1200	1200(950)	50	150
		465	1.73	450+*	450+*	450(350)+*		600	600	600(450)	50	50
			2.51	N/A	450+	450(350)+						
Clip fix	25	320	2.51	600++	600++	900(600)++	1.30	1200	1200	1200(950)	50	150
		520	1.73	450+*	450+*	450(350)+*		600	600	600(450)	50	50
			2.51	N/A	N/A	450(350)+						
	38	285	2.51	600	600	900(600)		1200	1200	1200(950)	50	150
		485	1.73	450+*	450+*	450(350)+*		600	600	600(450)	50	50
			2.51	N/A	N/A	N/A						
N3r or Region A (TC2, NS) or Region B1 (TC2.5, PS) or Region B2 (not WA) (TC3, FS)							N3w or Region A (TC2, NS) or Region B1 (TC2.5, PS) or Region B2 (not WA) (TC3, FS)					
Direct fix	25	290	2.70	600*	600*	800(600)*	2.03	800	850	950(750)	50	150
			3.92	N/A	500	600(450)						
		490	2.70	450+*	450+*	450(350)+*		550	600	600(450)	50	50
			3.92	N/A	N/A	N/A						
	38	265	2.70	600*	600*	850(600)*		900	1000	1150(900)	50	150
			3.92	N/A	N/A	450(350)						
		465	2.70	N/A	450+*	450(350)+*		550	600	600(450)	50	50
			3.92	N/A	N/A	N/A						
Clip fix	25	320	2.70	600++*	600++*	800(600)++*	2.03	900	950	1100(850)	50	150
			3.92	N/A	N/A	450(350)++						
		520	3.92	N/A	N/A	N/A		450	500	600(450)	50	50
	38	285	2.70	600*	600*	900(600)*		1200	1200	1200(950)	50	150
			3.92	N/A	450	650(500)						
		485	3.92	N/A	N/A	N/A		N/A	450	500(400)	50	50

Notes:
* Where roof pitch < 10 degrees, use spans given in red font for roof corners, or where roof pitch ≥ 10 degrees, use spans in red italics at the ridge/edge corners. Internal spans must have both end spans 20% shorter.
+ SharpLine® cladding to be fixed to minimum 15mm thick CD Grade plywood base at spans given in the table above. Maximum span of plywood 600mm
++ Where roof pitch is > 10° use plywood base as above.

Deflection under wind uplift not accounted for. If checking for this limit, please refer to serviceability pressures given in the wind pressure tables.

Values are only valid for use on steel supports 0.55mm G550 or thicker. Where thinner supports are used, fastener capacity must be checked. For 0.48mm thick battens, use #10x25 wafer head Type 17 screws (Direct fix) or #10x16 smooth/flat head self drilling screws (Clip fix) for fixing and reduce strength capacity above by 15%. All spans and pressures based on edge and corner areas of roof, and edge area of wall. In some instances, better spans may be possible away from edges in roof.
TC: Terrain category. FS, PS, NS: Full, partial and no shielding. Internal pressure coefficient +0.2/-0.3, external pressure coefficient -0.9(roof)/-0.65(wall).
For more specific applications, SharpLine® cladding must be designed to the pressure and foot traffic limitations below.

DESIGN DATA

SHARPLINE® CLADDING WIND PRESSURE TABLE – NON-CYCLONIC AREAS

Stramit tests to Australian Standard AS 1562.1:2018 and in accordance with the National Construction Code 2022 provides span load tables.

The table below shows wind pressure capacity based on the direct pressure (airbox) test method.

Tables are based on testing to AS 1562.1:2018 and AS 4040 parts 0 and 2. Internal spans must have both end spans 20% shorter.

SHARPLINE® CLADDING WIND PRESSURE TABLE – NON-CYCLONIC

Style	Rib Height (mm)	Cover (mm)	Span type	Serviceability pressure (kPa) at the span (mm) shown				Strength pressure (kPa) at the span (mm)shown			
				450	600	900	1200	450	600	900	1200
Direct fix	25	290	Internal	0.61	0.61	0.61	0.61	4.79	3.97	2.30	1.60
			Equal	0.61	0.61	0.61	0.61	4.23	3.51	2.03	1.42
			Double	0.61	0.61	0.61	0.61	3.87	3.21	1.85	1.30
Direct fix	25	490 ł	Internal	0.67	0.28			3.40	2.36		
			Equal	0.67	0.28			3.01	2.08		
			Double	0.67	0.28			2.75	1.91		
Direct fix	38	265	Internal	0.80	0.80	0.80	0.80	3.93	3.66	2.65	2.01
			Equal	0.80	0.80	0.80	0.80	3.47	3.24	2.34	1.78
			Double	0.80	0.80	0.80	0.80	3.17	2.96	2.14	1.56
Direct fix	38	465 ł	Internal	0.30	0.30			3.10	2.45		
			Equal	0.30	0.30			2.74	2.16		
			Double	0.30	0.30			2.50	1.98		
Clip fix	25	320+	Internal	0.66	1.05	0.79	0.53	4.16	3.53	2.52	1.88
			Equal	0.66	1.05	0.79	0.53	3.68	3.12	2.23	1.66
			Double	0.66	1.05	0.79	0.53	3.36	2.85	2.04	1.52
Clip fix	25	520 ł	Internal	0.64	0.37			2.64	2.09		
			Equal	0.64	0.37			2.33	1.85		
			Double	0.64	0.37			2.13	1.69		
Clip fix	38	285	Internal	1.21	1.65	1.52	1.39	4.56	4.19	3.49	2.82
			Equal	1.21	1.65	1.52	1.39	4.03	3.71	3.08	2.49
			Double	1.21	1.65	1.52	1.39	3.69	3.39	2.82	2.28
Clip fix	38	485 ł	Internal	0.38	0.64			2.37	1.88		
			Equal	0.38	0.64			2.09	1.66		
			Double	0.38	0.64			1.91	1.52		

Notes:
Values are only valid for use on steel supports 0.55mm G550 or thicker. Where thinner supports are used, fastener capacity must be checked.
For 0.48mm thick battens, use #10x25 wafer head Type 17 screws (Direct fix) or #10x16 smooth/flat head self drilling screws (Clip fix) for fixing and reduce strength capacity above by 15%.
Internal spans must have both end spans 20% shorter.
ł Where used on roofs, SharpLine® cladding direct fix 490, 465 and clip fixed 520, 485 to be fixed to minimum 15mm thick CD Grade plywood base at maximum 450mm spans.
+ For roof pitch >10° use a minimum 15mm thick CD Grade plywood base.

FOOT TRAFFIC

SharpLine® cladding roofs will be subjected to foot traffic and the spans in the table conform to AS 1562.1:2018 with 1.1kN load as specified in AS/NZS 1170.1:2002 for R2 - Other Roofs.

- Controlled – spans that conform to AS 1562.1:2018 but require minimal careful foot traffic only on the designated foot path. Suggested for use only where occasional aesthetic imperfections from foot traffic are acceptable.

SHARPLINE® CONTROLLED FOOT TRAFFIC LIMITS

style	rib height (mm)	cover (mm)	foot traffic limits (mm)		
			double	equal	internal
Direct fix	25	290	600	600	900
	25	490	450+	450+	450+
	38	265	600	600	900
	38	465	450+	450+	450+
Clip fix	25	320	600++	600++	900++
	25	520	450+	450+	450+
	38	285	600	600	900
	38	485	450+	450+	450+

Notes:
+ on plywood base. See note under wind pressure tables for details.
Tables are based on tests to AS 1562.1:2018 and AS 4040 parts 0 and 1.
++ Plywood base where roof pitch exceeds 10°.

DESIGN DATA

SPRING CURVING

Stramit's SharpLine® cladding is not suitable for spring curving applications. It is most important that the structure behind the SharpLine® cladding is the one flat plane, so any installation distortions are reduced.

SHEET LENGTH FOR DESIGN PURPOSES

SharpLine® cladding standard production maximum length is 9 metres. Longer lengths may be available however are not standard and must be discussed with Stramit before designing. Due to the nature of standing seam profiles, additional care must be taken when manufacturing, handling and transporting long lengths. Ensure designs are made within the current standard lengths.

THERMAL EXPANSION

All metal roof sheeting is subject to thermal expansion and, where there is a temperature difference between the sheeting and the structure, this needs to be accommodated. The colour of the sheeting will affect the amount of thermal expansion, and whether the sheet is flat or curved will affect its ability to resist without problems.

If longer lengths are required, sheet lengths must be limited to those shown below.

SHARPLINE® CLADDING - MAXIMUM SHEET LENGTHS (m)		
roof colour	light	dark
Clip Fix	25	17
Direct Fix	25	17

FLAMMABILITY AND COMBUSTIBILITY

Fire resistance is such an important topic and one that we take seriously at Stramit.

Stramit roofing, cladding, rainwater and structural building products are manufactured from steel produced by BlueScope or Pacific Coil Coaters (through Selection Steel). Both organisations have had independent tests on their materials carried out by CSIRO or AWTA. The testing was conducted in accordance with the Australian Standard AS 1530.3 'Simultaneous Determination of Ignitability, Flame Propagation, Heat Release and Smoke Release.' All materials had a surface finish less than 1mm in thickness and a Spread of Flame Index of 0. When tested in accordance with AS 5637.1:2015, BlueScope's COLORBOND® steel has a Product Group Number classification of 1.

Stramit products made from these steel sources and with the tested finishes would be considered non-combustible according to NCC 2022 Volume One clause C2D10 (6)(e) and Volume Two clause H3D2 (1)(e).

It is important to note that Stramit sheeting is only one component used in construction of these building elements, and other components must also meet the necessary requirements to satisfy the criteria.

For more information, refer to the Stramit Flammability Guide on our website stramit.com.au.

WATER CARRYING CAPACITY

Stramit's SharpLine® cladding has water-carrying capacity as detailed below. Roof slopes can be as low as 3^0 for many applications. Roof run lengths are the combined lengths of all roof elements contributing to a single pan drainage path. This can include the roof length upstream of a roof penetration that concentrates flow into other pans.

All SharpLine® cladding profiles can be used at 3^0 slope for up to 30 metres run length and rainfall intensities up to 400mm/hr.

The table below gives slopes for 1% Annual Exceedance Probability (formerly 100 year ARI) rainfall intensity.

For more information on water-carrying performance, refer to Stramit's Roof Slope Guide.

Notes:
Computations based on AS 1562.1:2018.
To avoid ponded water, minimum slope of 3° must be maintained along the entire roof length.

SHARPLINE® CLADDING - MINIMUM ROOF SLOPE (DEGREES)											
Style	Rib Height (mm)	Cover (mm)	Rainfall intensity mm/h	total roof run length (m)						max roof run length at min slope (m)
				30	40	50	60	70	80	
All	25, 38	All	200	3	3	3	3	3.0	3.2	78
			225	3	3	3	3	3.1	4.3	69
			250	3	3	3	3	4.0	5.6	62
			275	3	3	3	3.5	5.1	6.9	56
			300	3	3	3	4.3	6.2	8.5	52
			325	3	3	3.4	5.2	7.5	10	48
			350	3	3	4.0	6.2	8.9	12	44
			375	3	3	4.8	7.3	11	14	41
			400	3	3.2	5.6	8.5	12	16	39

PROCUREMENT

ORDERING

SharpLine® cladding can be ordered directly, through distributors, or supplied and fixed from a roofing contractor.

PRICES

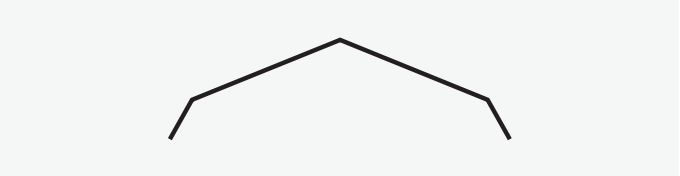
Prices on SharpLine® cladding and its accessories can be obtained from your nearest Stramit location or distributor of Stramit products. As Stramit does not provide an installation service, ask your tradesperson for a supply and fix price. Contact your nearest Stramit location for the names of tradespersons in your area.

LENGTH

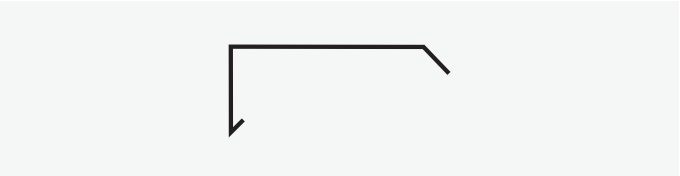
SharpLine® cladding is supplied cut-to-length. When designing or transporting long products ensure that the length is within the limit of the local Transport Authority regulations.
The manufacturing tolerance on the length of product supplied is +0, -15mm.

RELATED PRODUCTS

Ridge Capping - standard or custom dimensions



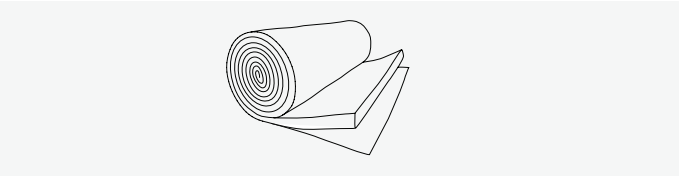
Flashings - range of custom flashings, barge roll etc.



Refer to the Stramit Roof and Wall Flashing Architectural Detailing Design Guide available on our website stramit.com.au

SharpLine® cladding clip - to suit height of product.

Insulation & roofing mesh - a range of mesh, Sisalation® foil insulation, plain & foil backed blanket.



INSULATION

SharpLine® cladding is suitable for use with insulating blanket. Glasswool blanket up to 50mm thick can be readily used. Increased thicknesses require longer fasteners and greater care in installation. Ensure the length of the screw is sufficient to have a minimum of 3 threads protruding below the steel support. For domestic applications the use of insulation aids with controlling energy efficiency.

DELIVERY/UNLOADING

SharpLine® cladding requires additional care when transporting and unloading.

Pack mass may be up to one tonne. When lifting SharpLine® cladding, care must be taken to ensure that the load is spread to prevent damage.

Delivery can normally be made within 72 hours, subject to the delivery location, quantity and material availability, or can be at a pre-arranged date and time.

Please ensure that suitable arrangements have been made for truck unloading, as this is the responsibility of the receiver.

HANDLING/STORAGE

SharpLine® cladding must be handled with care at all times to preserve the product capabilities and quality of the finish. Packs must always be kept dry and stored above ground level while on site. If the sheets have become wet, they must be separated, wiped and placed in the open to promote drying.

FASTENERS FOR NON-CYCLONIC REGIONS

All fasteners with Phillips head, conforming to AS 3566 - suitable for minimum corrosivity category 3.
Check fastener length if using insulation.

Direct Fix (one per sheet per support)	
Steel battens	
	0.48mm BMT - 10 x 25mm wafer head Type 17 screws
	0.55mm BMT or greater - 10 x 16mm wafer head self-drilling screws
Timber battens	
	10 x 25mm wafer head Type 17 screws

Clip Fix (two per sheet per clip per support)	
Steel battens	
	10 x 16mm smooth/flat head self-drilling screws
Timber battens	
	10 x 25mm smooth/flat head Type 17 screws
	For plywood, use screws for timber battens. If protrusion below plywood is not desired, use 10 x 16mm flat head needle point screws.

PROCUREMENT

SITE INDUCTION

Consideration must be given to handling and installation issues as part of site induction safety procedures. Specific consideration must be given to pack handling, avoidance of cuts, trips, slips and falls, long sheet handling particularly in windy conditions, sheet cutting procedures and surface temperature on sunny days. Personal Protection Equipment (PPE) must always be used.

WALKING

As with all roofing products, extra caution must be taken when walking on the roof. When walking on SharpLine® roof cladding always wear flat rubber soled shoes and place feet only in the trays, taking care to avoid the last tray or two near edges of the metal roof area. Walk close to supports to avoid damage.

GOOD PRACTICE

Good trade practice must be followed when using this product, such as that found in Australian Standards AS 1562.1:2018 and handbook HB39.

SHEET HANDLING

Cut resistant or leather gloves must be worn when handling product. Foot protection must be worn when handling and transporting product.

CUTTING

SharpLine® cladding can be easily cold cut, where required, using a power saw with a steel cutting blade or a power nibbler and, for localised cutting, tin snips. Avoid the use of abrasive discs as these can cause burred edges and coating damage. Please dispose of any off-cuts carefully.

INSTALLATION

SharpLine® cladding is readily installed with or without insulation blanket.

The use of heavy-duty sarking is recommended to ensure weather tightness. If practical, lay sheets in the opposite direction to prevailing weather.

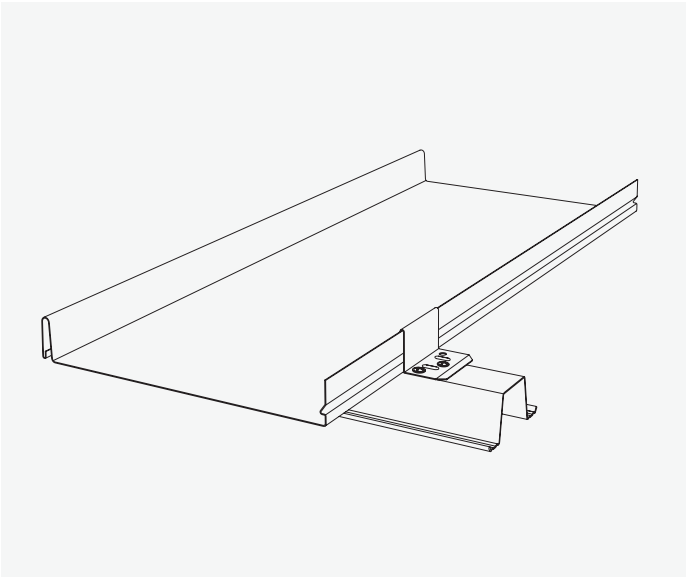
Installation of SharpLine® cladding is a straightforward procedure using the following fixing sequence for either SharpLine® Clip or SharpLine® Direct fix.

FASTENER LOCATION

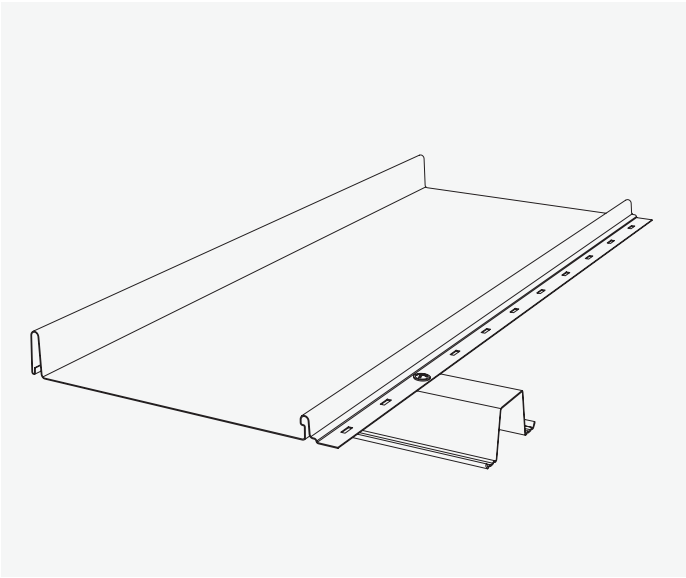
SharpLine® clip fix cladding requires a galvanized fixing clip to be attached at the supports at every batten/purlin.

SharpLine® direct fix cladding has the fasteners driven through the slots in the side edge of the sheet. If the slots do not align with the supports, drill through the roof/wall sheet with the fasteners.

SHARPLINE® CLIP FIX CLADDING



SHARPLINE® DIRECT FIX CLADDING



INSTALLATION

Refer to the section on Oil Canning for further tips on installation.

SHARPLINE® CLIP FIX CLADDING

1. Ensure all purlins/battens are in line and correctly installed and that plywood substrate, mesh and blanket (if specified) are in place.
2. Use a string line, or the edge of the first sheet to align the first row of fixing clips. Attach the fixing clips to the structure using the correct fasteners, ensuring screws go in straight and head is not tilted or protruding.
3. Position the first sheet over the clips ensuring the correct sheet overhangs (minimum eave overhang 50mm).
4. Fasten through the vertical upstand to attach the sheet to the clip.
5. Install fixing clips to each batten using two fasteners driven in straight, placing the clip over the trailing edge of the cladding sheet.
6. Carefully lay the following sheet in place and press the interlock together along the sheet, ensuring the interlock is fully engaged. If needed, use a rubber mallet for assistance, taking care not to damage the rib.

Note: Visible marking may result if excessive force is used. If the roof pitch is less than 7.5 degrees, or the roof run length exceeds 5 meters, apply silicone sealer below the underlap rib, prior to laying the following sheet.

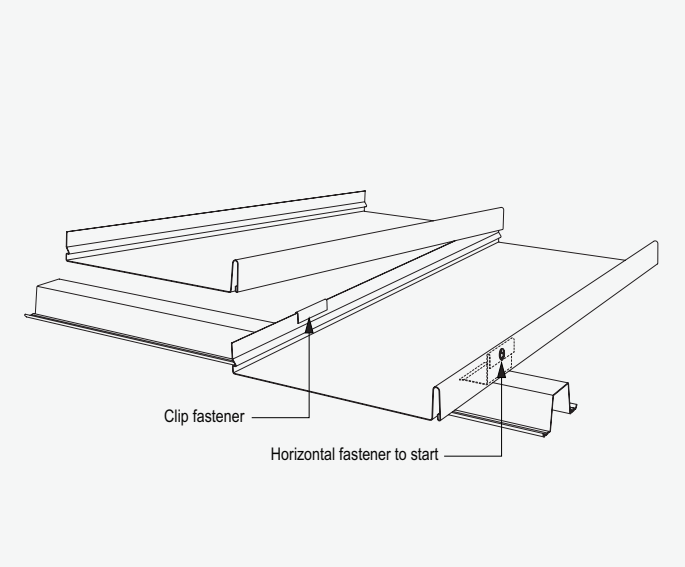
7. Continue to install fixing clips and subsequent sheets, checking that sheet ends at the lower edge are exactly aligned.
8. Measure the overall cover width at the top and bottom of the sheets from time to time to avoid “fanning”.
9. For roofs, turn up the pans at the upper roof edge and install flashings. Turn down the bottom end of the sheet to facilitate drainage into gutters.
10. Clean up the roof after each day’s work, removing all screws, cuttings, swarf etc., and leave roof clean and watertight.

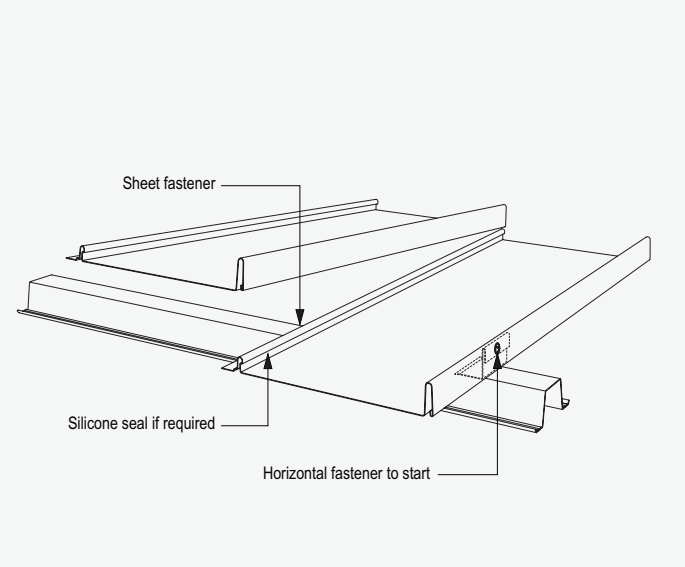
SHARPLINE® DIRECT FIX CLADDING

1. Ensure all purlins/battens are in line and correctly installed and that plywood substrate, mesh and blanket (if specified) are in place.
2. Either cut a full-length sheet of SharpLine® direct fix cladding near the trailing edge to create a starter strip or install SharpLine® cladding fixing clips to locate the first sheet (see steps 2, 3, and 4 for SharpLine® clip fix cladding installation).
3. Position and fix the first sheet over the clips or partial sheet ensuring the correct sheet overhangs (minimum 50mm). Fix the edge down with nominated screws, through a slot in the sheet if available or through the sheet if not. Ensure the screws are not overtightened.
4. Carefully lay the following sheet in place and press the interlock together along the sheet, ensuring the interlock is fully engaged. If needed, use a rubber mallet for assistance, taking care not to damage the rib.

Note: If the roof pitch is less than 7.5 degrees, or the roof run length exceeds 5 metres, apply silicone sealer below the underlap rib, prior to laying the following sheet, then fasten down with screws.

5. Continue to install and screw fix subsequent sheets, checking that sheet ends at the lower edge are exactly aligned.
6. Measure the overall cover width at the top and bottom of the sheets from time to time to avoid “fanning”.
7. For roofs, turn up the pans at the upper roof edge and install flashings. Turn down the bottom end of the sheet to facilitate drainage into gutters.
8. Clean up the roof after each day’s work, removing all screws, cuttings, swarf etc., and leave roof clean and watertight.





Note that the different cover width versions of both SharpLine® clip fix cladding and SharpLine® direct fix cladding profiles can be used together to create different architectural appearances, however SharpLine® clip fix cladding and SharpLine® direct fix cladding are not compatible and cannot be used side by side.

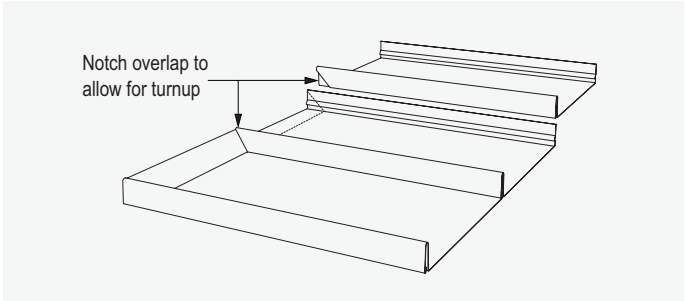
INSTALLATION

END LAPS

End lapping of SharpLine® clip fix cladding or SharpLine® direct fix cladding is not possible.
Contact Stramit Technical Support for more information.

SHARPLINE® CLADDING TURN UP DETAIL

Use a turn up/down tool to carefully and progressively fold up the top end of the sheet for approximately 25mm. Fold the sheet up as close to 90 degrees as possible. Do not tear the sheet.



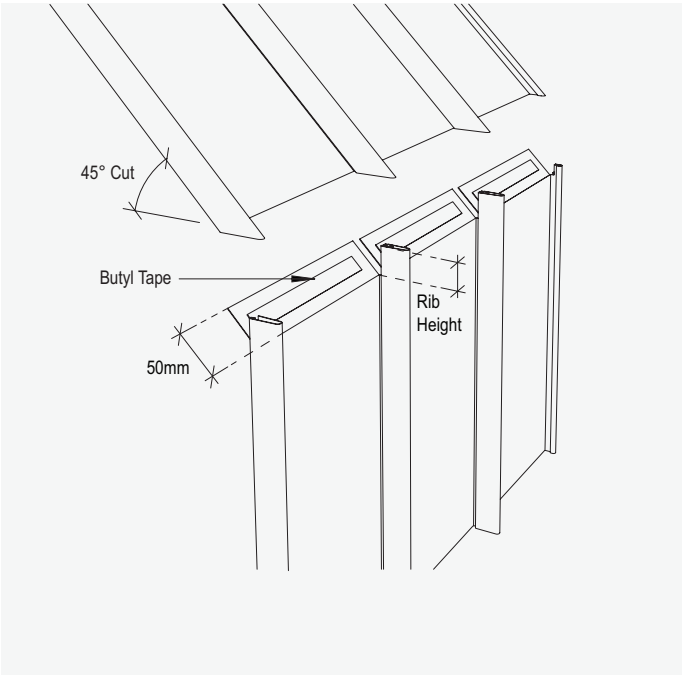
SHARPLINE® CLADDING TURN DOWN DETAIL

Use a turn up/down tool to carefully and progressively fold down the bottom gutter end of the sheet for approximately 25mm. Do not tear the sheet.

SHARPLINE® CLADDING ROOF TO WALL DETAIL

This common architectural detail requires the wall sheets to be cut 50mm longer than the wall height. The top end of the wall sheet is notched and a 50mm fold created to sit below the roof sheet.

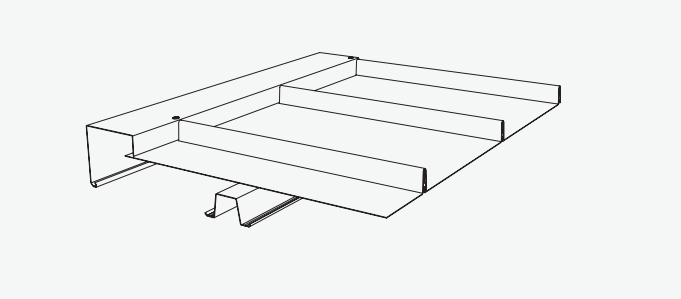
The roof sheet is also notched at the bottom end to match the wall rib height, the ribs are cut back to the pans. Rivet roof and wall sheets together. Use butyl tape and silicone to make the joint weathertight. Ensure that the anti-capillary drain on the roof is allowed to drain before the roof/wall joint.



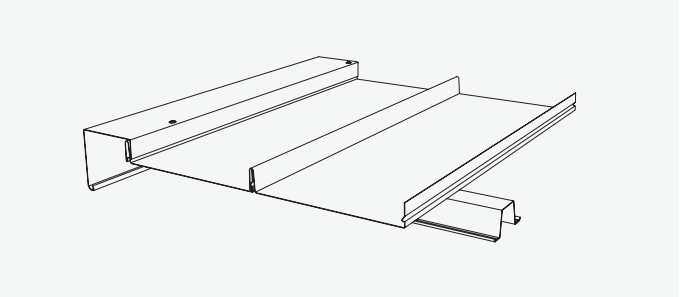
TYPICAL FLASHING DETAIL

At the high end of the roof run, fascia or ridge flashing is conventional and must cover the cladding by at least 150mm.

Notch the flashing around the ribs and secure with low profile fasteners at maximum 300mm centres.



The barge flashing is also conventional and must cover the cladding by at least one rib. If necessary, support the flashing on roof battens to maintain the flashing shape over wider coverage and secure with low profile fasteners at approximately the same spacing as supports below.



For more flashing detail, refer to the Stramit Roof and Wall Flashing Architectural Detailing Design Guide available on our website *stramit.com.au*.

ADDITIONAL INFORMATION

MAINTENANCE

Exterior surfaces of metal products unwashed by rain can benefit from occasional washing to remove buildup of corrosive salts. Walls beneath eaves or awnings are such a situation.

Further information on maintenance of the product can be found in BlueScope Technical Bulletin TB-4 for COLORBOND® steel product at:
https://cdn.dcs.bluescope.com.au/download/tb-04
or,
Maintenance and Repair of UniCote® products at:
https://unicote.com.au/technical-resources/maintenance-and-repair-of-unicote-products/

REFERENCES

In preparing this document reference has been made to:

- Standards Australia Handbook - HB39 (Installation code for metal roof and wall cladding)
- BlueScope - Technical Bulletin TB-4 (Maintenance of exterior BlueScope coated steel products)
- BlueScope - Technical Bulletin TB-1 (Steel roofing and walling products - selection guide)

FURTHER INFORMATION

As well as our standard range of Technical Manuals, Installation Leaflets, Case Studies and other promotional literature Stramit has a series of Guides to aid design.

These include:

- Roof Slope Guide
- Foot Traffic Guide
- Bullnosing, Curving and Crimping
- Acoustic Panels
- Cyclonic Areas
- Spring Curving Guide

Please contact your nearest Stramit location for any of these guides, or other literature.

OTHER PRODUCTS

Stramit offers a wide range of building products, including:

- Formwork decking
- Roof and wall sheeting
- Purlins, girts and bridging
- Lightweight structural sections
- Gutters and downpipes
- Fascias
- Custom flashings
- Insulating products
- Fasteners

Stramit

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For product technical support enquiries please contact: techsupport@stramit.com.au

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