

TRIMCLAD®

POPULAR ROOFING & WALLING PROFILE



A Met-TECH™ GUIDE

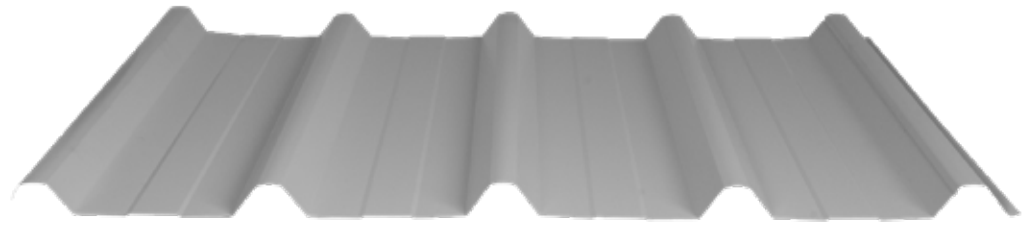
MARCH 2024



Metroll®

BETTER SERVICE • BETTER BUILDING SOLUTIONS

TRIMCLAD®



Pan Width: ≈ 130mm

Rib Width: ≈ 60mm

Cover: 762mm Height: 29mm

Trimclad® is custom length, high tensile steel roofing manufactured from 0.42mm and 0.48mm BMT COLORBOND®, ZINCALUME® and galvanised steels. It is also available as wall cladding from 0.35mm BMT COLORBOND® and ZINCALUME® steels. Trimclad® is ideal for roof and wall cladding on commercial and industrial buildings; and as roofing on carports, garages and patios. It can also be used for fencing, fascia and facade work.

FEATURES & BENEFITS

- Custom lengths
- Lightweight
- Ideal for commercial & industrial applications
- Wide range of colours
- Matching accessories available
- Long spanning capability

TRIMCLAD® - ROOFING

BMT mm	Steel Base MPa	Mass CB* kg/m ²	Mass Zinc kg/m ²	Min. Pitch°	Max Spans mm**	
					End	Internal
0.42	G550	4.30	4.23	2 (1 in 30)	1350	1900
0.48	G550	4.88	4.81	2 (1 in 30)	1900	2600

TRIMCLAD® - WALLING

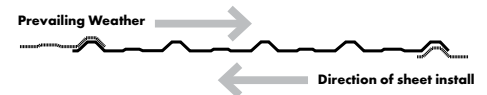
BMT mm	Steel Base MPa	Mass CB* kg/m ²	Mass Zinc kg/m ²	Max Spans mm**
0.35	G550	3.62	3.56	2400
0.42	G550	4.30	4.23	2400
0.48	G550	4.88	4.81	2400

*CB = Colorbond®

** Max. Spans are based on N2 Wind Category and 1.5mm substrate

FASTENERS

Trimclad® may be fastened to timber or steel supports by conventional crest fixing. Always face side laps away from the prevailing weather.



What is Met-TECH™?

Met-TECH™ is Metroll's Technical Resource Centre. It is the one stop shop for all of Metroll's product and technical information. Perfect for builders, contractors and specifiers to source all the information they may require. You can find other Met-TECH™ items on our website www.metroll.com.au/resources

Timber Supports

Roofing M6 - 11 x 65mm Roof Zips® Hex Head with seal

Walling M6 - 11 x 25mm Roof Zips® Hex Head with seal (Valley Fix)

Steel Supports 0.48mm to 1.5mm BMT

Roofing M6 - 11 x 50mm Roof Zips® Hex Head with seal

Walling M6 - 11 x 25mm Roof Zips® Hex Head with seal (Valley Fix)

Steel Supports 1.5mm to 4.5mm BMT

Roofing M5.5 x 50mm AutoTek® Hex Head with seal

Walling M6 - 11 x 25mm Roof Zips® Hex Head with seal (Valley Fix)

SIDE LAPS

It is considered good practice to use fasteners on side laps, although these are generally not necessary when the sheeting is supported as indicated in the maximum span tables or for roof spans under 900mm and wall cladding spans under 1200mm. Side lap fastening should be considered if the weather resistance of the joint is questionable for any reason.

SPRING CURVING

BMT mm	CONCAVE		CONVEX		
	Min. Radius	Max. Support Spacing	Min. Radius	Max. Support Spacing	Max. Radius for Drainage
0.42	20m	900mm	70m	1200mm	105m
0.48	20m	900mm	60m	1200mm	105m

DRAINAGE & OVERFLOW

Max Roof Run (m) for Slopes & Rainfall Intensity

Rainfall Intensity mm/hr	Trimclad® Roof Slope				
	1 in 30 2°	1 in 20 3°	1 in 12 5°	1 in 7.5 7.5°	1 in 6 10°
100	220	257	320	382	439
150	146	172	214	255	293
200	110	129	160	191	220
250	88	103	128	153	176
300	73	86	107	127	146
400	55	64	80	96	110

- Rainwater run-off and drainage capacity may place some limitations on the total length of a sheet run and must be considered during the design and construction phase of a project.
- The total length of roof sheeting; which shall include end laps, expansion joints or steps and draining the roof in one direction, shall be considered as a single roof run.
- Thermal expansion must also be considered.
- Maximum production and transport lengths may limit availability.

LENGTH

Metroll supplies Trimclad® cut to order as required; depending on load limit regulations set by local transport authorities. Lengths for manufacture need to be site measurements and not taken off plans. Sheet length is obtained by measuring the distance from the ridges to the external edges or fascia and adding a minimum of 50mm for overhang into the gutter.

To prevent damage when lifting long lengths, ensure sheets are lifted with the use of multiple lift point spreader bars.

CUTTING

Cut sheets with a method and in a location so that damage is avoided to sheets and other building products. Material should be cut on the ground and not above other materials. Remove all swarf and debris from the work and installation area. Sheets may be cut using a power saw with a steel cutting blade, a power nibbler or with tin snips. Avoid using abrasive discs as these can cause edge and coating damage.

CLEAN UP

Prior to departing the work site remove all foreign debris, screws, rivets and especially any swarf created by drilling or cutting from the roof surface and/or inside gutters. Failure to do so may result in premature corrosion.

MATERIAL COMPATIBILITY

Never use lead flashings with Trimclad® sheeting made from COLORBOND® and ZINCALUME® steels. Avoid drainage from copper roofs onto COLORBOND®, ZINCALUME® or galvanised steel roofing or rainwater products. Lead, copper, bare metal and some chemically treated timbers are not compatible with Trimclad®.

ADVERSE CONDITIONS

Localised environmental conditions can impact the corrosive nature of a site which may impact on material choice. Conditions that may impact on material choice include; direction of prevailing winds, rainfall intensity, duration of exposure, temperature, shelter and areas not washed by rainfall. Contact your local Metroll branch if you intend to use Trimclad® within 1 km of industrial, chemical, marine or corrosive environments.

MATERIAL SPECIFICATION & SCOPE

All roofing and walling should be specified on drawings as Trimclad®, manufactured by Metroll and installed in accordance with the manufacturers recommendations. Base sheet steel is G550 with specified finish.

AVAILABILITY & DELIVERY

Trimclad® is available nationwide. Contact your local Metroll branch for lead times, colours and availability.

Ensuring suitable arrangements are made to assist the unloading of Metroll trucks will help supply material in good order. When lifting long lengths by crane please ensure the load is evenly spread. Where a crane cannot be made available it is the customers responsibility to provide sufficient labour to assist the driver in unloading.

TRIMCLAD® FOOT TRAFFIC

BMT (mm)	Internal Span (mm)	End Span (mm)
0.42	1900	1350
0.48	2600	1900

- Foot traffic limits are based on AS/NZS 1170.1 for R2 - Other roofs.
- All traffic must use the designated foot traffic paths and, at all times, follow safe practices.

TRIMCLAD® OVERHANGS

The overhangs on Trimclad® are limited to the values in the following table. Overhangs have a minimum length of 50mm. Stiffened overhangs incorporate an angle or gutter attached to the sheet end.

	BMT (mm)	Plain (mm)	Stiffened (mm)
ROOFING	0.42	150	300
	0.48	200	350
WALLING	0.35	150	250
	0.42	200	300
	0.48	250	350

- Plain overhangs are limited to 20% of the adjacent end span.
- Stiffened overhangs are limited to 33% of the adjacent end span.

WALKING ON TRIMCLAD®

When walking on Trimclad® roof sheeting always wear flat rubber soled shoes and only walk in the roof pans.

TOLERANCES

Consideration should be given to the following manufacturing tolerances:

Length +0mm, -15mm **Width** ± 4mm

THERMAL EXPANSION

Change in temperature will cause all metals to expand and contract. There is minimal effect with steel roofing and walling, however care must be taken when long sheet runs are used and high temperature variations occur. Metroll recommends the following maximum runs:

Dark Colours - Up to 17m	Light Colours - Up to 24m
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OIL CANNING

Oil canning appears as waviness or rippling in the flat areas of metal panels. It is a characteristic of light gauge cold rolled metal roofing and cladding products. It can occur on all types of metal sheeting and is not considered a defect. Oil canning is a cosmetic issue and does not affect the structural integrity of the product. Oil canning may occur due to installation methods, thermal expansion and contraction and material colour. For more information please refer to the Oil Canning Data Sheet on our website.

CARE, HANDLING & STORAGE

Care should be taken at all times when handling sheets to preserve the quality of the finish. Keep packs dry, stored clear of the ground and protected from rain and moisture. Any sheets which become wet should be separated, wiped and placed in the open air to dry.

0.35mm & 0.42mm TRIMCLAD® LIMIT STATE CAPACITY TABLES

Tables and values must be used in conjunction with the Design Notes to Limit State Capacity Tables

0.35mm TRIMCLAD® WITH 4 FASTENERS/SHEET/BATTEN WALLING ONLY

LIMIT STATE	SPAN TYPE	SUPPORT THICKNESS (mm)	PRESSURE (kPa) FOR SPAN (mm)								
			600	900	1200	1500	1800	2100	2400	2700	3000
SERVICEABILITY	Internal	All	2.70	2.60	2.50	2.10	1.90	1.55	1.20	0.90	0.62
	End	All	3.19	3.19	2.49	2.04	1.62	1.22	0.85	0.58	
STRENGTH	Internal	1.50+	6.50	6.36	5.52	4.39	3.40	2.78	2.28	1.90	1.52
		1.20	6.50	6.36	5.52	4.39	3.40	2.78	2.28	1.90	1.52
		1.00	6.50	6.36	5.52	4.39	3.40	2.78	2.28	1.90	1.52
		0.75	6.50	6.36	4.82	3.86	3.22	2.76	2.28	1.90	1.52
		0.55	6.50	4.68	3.51	2.81	2.34	2.01	1.75	1.56	1.40
		0.48	6.14	4.09	3.07	2.46	2.05	1.75	1.54	1.36	1.23
	End	1.50+	5.85	5.72	4.67	3.66	2.75	2.24	1.84	1.57	1.34
		1.20	5.85	5.72	4.67	3.66	2.75	2.24	1.84	1.57	1.34
		1.00	5.85	5.72	4.67	3.66	2.75	2.24	1.84	1.57	1.34
		0.75	5.85	5.72	4.34	3.47	2.75	2.24	1.84	1.57	1.34
		0.55	5.85	4.21	3.16	2.53	2.11	1.80	1.58	1.40	1.26
		0.48	5.53	3.68	2.76	2.21	1.84	1.58	1.38	1.23	1.11

0.42mm TRIMCLAD® WITH 4 FASTENERS/SHEET/BATTEN

LIMIT STATE	SPAN TYPE	SUPPORT THICKNESS (mm)	PRESSURE (kPa) FOR SPAN (mm)								
			600	900	1200	1500	1800	2100	2400	2700	3000
SERVICEABILITY	Internal	All	5.39	5.12	3.88	2.94	2.14	1.75	1.29	0.94	0.76
	End	All	4.60	4.43	3.24	2.41	1.72	1.30	0.99	0.75	0.47
STRENGTH	Internal	1.50+	9.06	8.43	6.77	5.51	4.48	3.91	3.34	2.77	2.40
		1.20	9.06	8.19	6.14	4.91	4.09	3.51	3.07	2.73	2.40
		1.00	9.06	7.60	5.70	4.56	3.80	3.26	2.85	2.53	2.28
		0.75	9.06	6.43	4.82	3.86	3.22	2.76	2.41	2.14	1.93
		0.55	7.02	4.68	3.51	2.81	2.34	2.01	1.75	1.56	1.40
		0.48	6.14	4.09	3.07	2.46	2.05	1.75	1.54	1.36	1.23
	End	1.50+	6.34	5.90	4.74	3.86	3.14	2.74	2.34	1.94	1.68
		1.20	6.34	5.90	4.74	3.86	3.14	2.74	2.34	1.94	1.68
		1.00	6.34	5.90	4.74	3.86	3.14	2.74	2.34	1.94	1.68
		0.75	6.34	5.79	4.34	3.47	2.89	2.48	2.17	1.93	1.68
		0.55	6.32	4.21	3.16	2.53	2.11	1.80	1.58	1.40	1.26
		0.48	5.53	3.68	2.76	2.21	1.84	1.58	1.38	1.23	1.11

DESIGN NOTES

- For timber battens/purlins, use 1.50+ support thickness values.
- Type 17 screws must penetrate more than 25mm into hardwood or 35mm into softwood.
- Metal supports are produced from hi-tensile steel.
- For most economic results use longer internal spans than end spans (in a ratio of 10:8).
- Equal span systems must be designed using end span values.

0.48mm TRIMCLAD® LIMIT STATE CAPACITY TABLES

Tables and values must be used in conjunction with the Design Notes to Limit State Capacity Tables

0.42mm TRIMCLAD® WITH 4 FASTENERS/SHEET/BATTEN

LIMIT STATE	SPAN TYPE	SUPPORT THICKNESS (mm)	PRESSURE (kPa) FOR SPAN (mm)								
			600	900	1200	1500	1800	2100	2400	2700	3000
SERVICEABILITY	Internal	All	5.39	5.12	3.88	2.94	2.14	1.75	1.29	0.94	0.76
	End	All	4.60	4.43	3.24	2.41	1.72	1.30	0.99	0.75	0.47
STRENGTH	Internal	1.50+	9.06	8.43	6.77	5.51	4.48	3.91	3.34	2.77	2.40
		1.20	9.06	8.19	6.14	4.91	4.09	3.51	3.07	2.73	2.40
		1.00	9.06	7.60	5.70	4.56	3.80	3.26	2.85	2.53	2.28
		0.75	9.06	6.43	4.82	3.86	3.22	2.76	2.41	2.14	1.93
		0.55	7.02	4.68	3.51	2.81	2.34	2.01	1.75	1.56	1.40
		0.48	6.14	4.09	3.07	2.46	2.05	1.75	1.54	1.36	1.23
	End	1.50+	6.34	5.90	4.74	3.86	3.14	2.74	2.34	1.94	1.68
		1.20	6.34	5.90	4.74	3.86	3.14	2.74	2.34	1.94	1.68
		1.00	6.34	5.90	4.74	3.86	3.14	2.74	2.34	1.94	1.68
		0.75	6.34	5.79	4.34	3.47	2.89	2.48	2.17	1.93	1.68
		0.55	6.32	4.21	3.16	2.53	2.11	1.80	1.58	1.40	1.26
		0.48	5.53	3.68	2.76	2.21	1.84	1.58	1.38	1.23	1.11

0.35mm TRIMCLAD® SPAN CHART

Tables and values must be used in conjunction with the Design Notes to Limit State Capacity Tables

0.35mm TRIMCLAD® WALLING ONLY

FASTENER FREQUENCY	SPAN TYPE	SUPPORT THICKNESS (mm)	ROOF SPANS (mm) FOR WIND CATEGORY						WALL SPANS (mm) FOR WIND CATEGORY					
			N1	N2	N3	N4	N5	N6	N1	N2	N3	N4	N5	N6
4	Internal	1.50+	na						3000	3000	2700	2050	1550	1150
		1.20							3000	3000	2700	2050	1550	1150
		1.00							3000	3000	2700	2050	1500	1100
		0.75							3000	3000	2700	1900	1300	950
		0.55							3000	3000	2050	1400	950	700
		0.48							3000	2800	1800	1200	800	600
	End	1.50+	na						2400	2400	2150	1600	1200	900
		1.20							2400	2400	2150	1600	1200	900
		1.00							2400	2400	2150	1600	1200	850
		0.75							2400	2400	2150	1500	1000	750
		0.55							2400	2400	1600	1100	750	
		0.48							2400	2200	1400	950	600	

DESIGN NOTES

- Spans shown reflect the minimum value of the Serviceability, Strength and Foot Traffic tables.
- The Wind Category is based on AS 4055 and results include an allowance for local pressure factors.
- If roof pitch is less than 10 degrees, then increase the Wind Category upwards by 1, and apply to an area not less than 1.2m from all corners.
- For timber battens/purlins use 1.5+ support thickness values.
- Metal supports are produced from hi-tensile steel.
- For most economic results use longer internal spans than end spans (in a ratio of 10:8).
- Equal span systems must be designed using end span values.

0.42mm & 0.48mm TRIMCLAD® SPAN CHART

Tables and values must be used in conjunction with the Design Notes to Limit State Capacity Tables

0.42mm TRIMCLAD®

FASTENER FREQUENCY	SPAN TYPE	SUPPORT THICKNESS (mm)	ROOF SPANS (mm) FOR WIND CATEGORY						WALL SPANS (mm) FOR WIND CATEGORY					
			N1	N2	N3	N4	N5	N6	N1	N2	N3	N4	N5	N6
4	Internal	1.50+	1900	1900	1900	1900	1400	950	3000	3000	2850	2450	1800	1350
		1.20	1900	1900	1900	1800	1250	900	3000	3000	2850	2400	1650	1200
		1.00	1900	1900	1900	1700	1150	800	3000	3000	2850	2250	1500	1150
		0.75	1900	1900	1900	1400	950	700	3000	3000	2850	1900	1300	950
		0.55	1900	1900	1550	1050	700		3000	3000	2050	1400	950	700
		0.48	1900	1900	1350	900	600		3000	2800	1800	1200	800	600
	End	1.50+	1350	1350	1350	1350	850	750	2400	2400	2250	1850	1300	800
		1.20	1350	1350	1350	1350	850	700	2400	2400	2250	1850	1300	800
		1.00	1350	1350	1350	1100	750	600	2400	2400	2250	1800	1200	800
		0.75	1350	1350	1350	1100	750		2400	2400	2250	1500	1000	750
		0.55	1350	1350	1200	800			2400	2400	1600	1100	750	
		0.48	1350	1350	1050	700			2400	2200	1400	950	600	

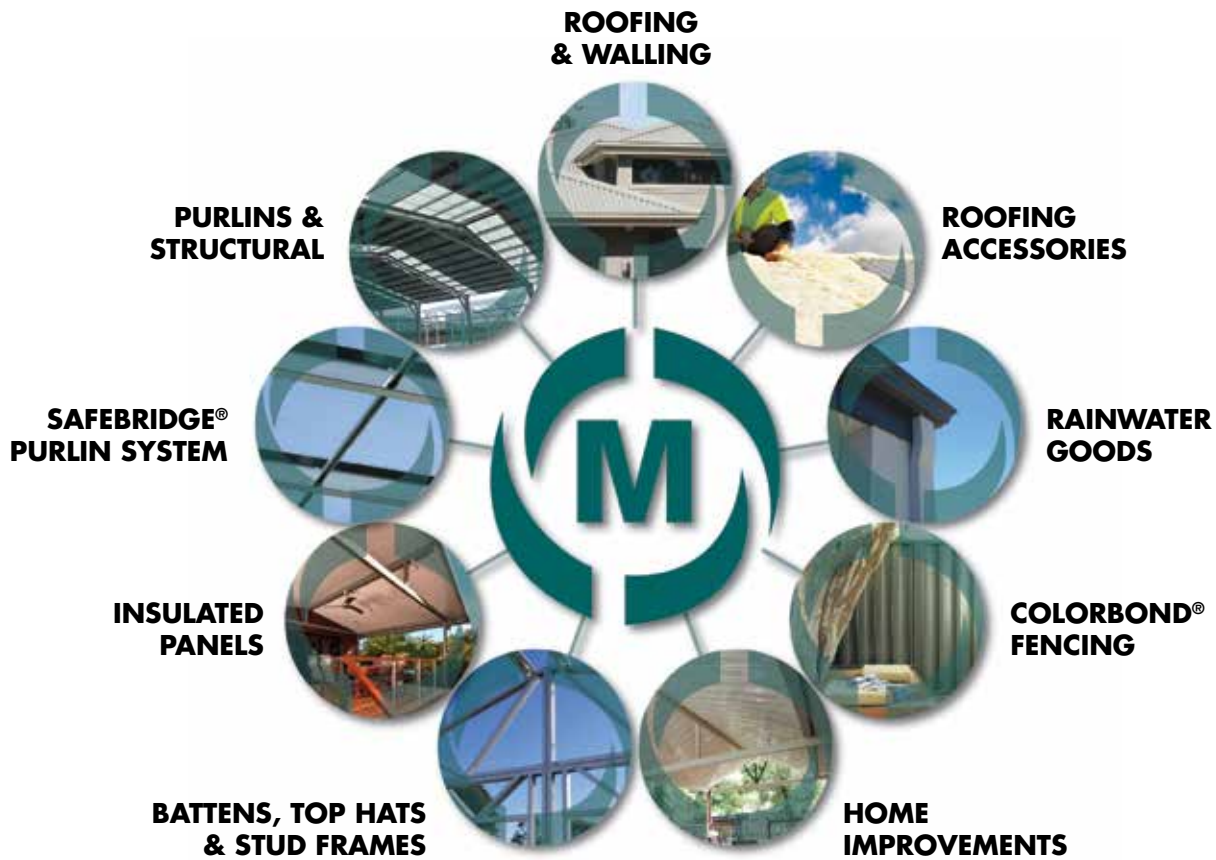
0.48mm TRIMCLAD®

FASTENER FREQUENCY	SPAN TYPE	SUPPORT THICKNESS (mm)	ROOF SPANS (mm) FOR WIND CATEGORY						WALL SPANS (mm) FOR WIND CATEGORY					
			N1	N2	N3	N4	N5	N6	N1	N2	N3	N4	N5	N6
4	Internal	1.50+	2600	2600	2600	2250	1650	1100	3000	3000	3000	2750	2150	1650
		1.20	2600	2600	2600	1800	1250	900	3000	3000	3000	2400	1650	1200
		1.00	2600	2600	2500	1700	1150	800	3000	3000	3000	2250	1500	1150
		0.75	2600	2600	2100	1400	950	750	3000	3000	2850	1900	1300	950
		0.55	2600	2400	1550	1050	700		3000	3000	2050	1400	950	700
		0.48	2600	2100	1350	900	600		3000	2800	1800	1200	800	600
	End	1.50+	1900	1900	1900	1800	1300		2400	2400	2400	2200	1700	1300
		1.20	1900	1900	1900	1400	1000		2400	2400	2400	1900	1300	950
		1.00	1900	1900	1900	1350	900		2400	2400	2400	1800	1200	900
		0.75	1900	1900	1650	1100	750		2400	2400	2250	1500	1000	750
		0.55	1900	1900	1200	800			2400	2400	1600	1100	750	
		0.48	1900	1650	1050	700			2400	2200	1400	950	600	

DESIGN NOTES

- Spans shown reflect the minimum value of the Serviceability, Strength and Foot Traffic tables.
- The Wind Category is based on AS 4055 and results include an allowance for local pressure factors.
- If roof pitch is less than 10 degrees, then increase the Wind Category upwards by 1, and apply to an area not less than 1.2m from all corners.
- For timber battens/purlins use 1.5+ support thickness values.
- Metal supports are produced from hi-tensile steel.
- For most economic results use longer internal spans than end spans (in a ratio of 10:8).
- Equal span systems must be designed using end span values.

Can we assist with any additional
Steel Building Products?



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Launceston 03 6335 8555

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Darwin 08 8935 9555

WA

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Perth 08 9365 5444
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