

THE METROLL MATE

A GUIDE FOR ROOFERS



A Met-TECH™ GUIDE

SEPTEMBER 2020



Metroll®

BETTER SERVICE • BETTER BUILDING SOLUTIONS

THE METROLL MATE

The Met-TECH Metroll Mate is a general information resource for roofers. It's a handy guide to roofing information and is complemented by the full range of Metroll Met-TECH product and design guides.

This manual is designed to provide general roofing information and guidance for non-cyclonic application.

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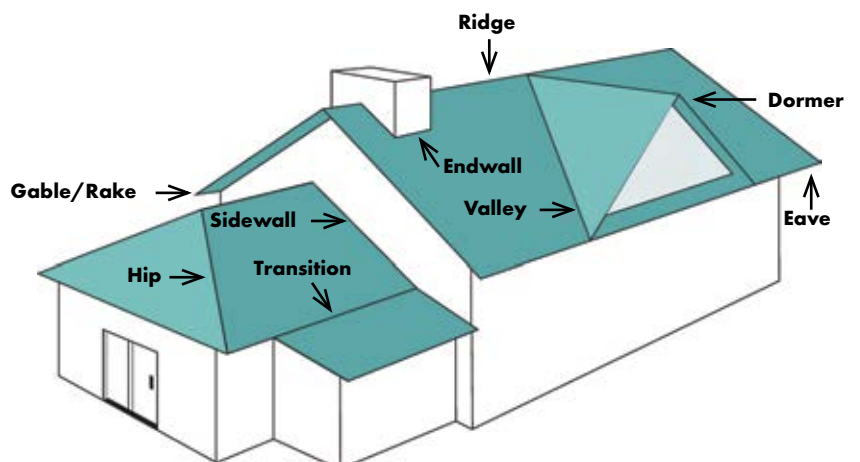
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What is Met-TECH™ ?

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

ROOF TERMINOLOGY



FREQUENTLY USED ROOFING TERMS

AIR VENTING Allowing air to enter or exit a confined space.

APRON Metal flashing used where a roof meets a vertical face, such as walls and chimneys.

BARGE CAP A flashing that is used to fix the gable end of the roof where the sheets start and finish.

BATTEN A long strip of squared timber or rolled metal that roof sheets are screwed onto.

BMT Base Metal Thickness.

BOX GUTTER A gutter that is not on an eave. Typically installed at the base of two opposing roof faces or inside a parapet wall.

CAPPING Metal caps which are installed as a waterproof device where roof sheeting ends.

CEILING BATTS A type of bulk insulation designed to fit in the roof space between joists, rafters or studs. Typically made from glass wool, polyester or wool.

COATING CLASS Refers to the level of corrosion protection. It is directly proportional to the coating mass.

CONCEALED-FIX A type of decking/roofing that is locked into obscured fixing clips which have been fastened to the roof supports, rather than being fixed by visible screws.

COR-STRIP® A removable polyethylene film which protects roof and wall sheeting during storage.

DOWNPIPE A pipe that carries rainwater from guttering to ground level or a drain.

EAVES The external ceiling between the fascia and the outside wall of a building.

EDGE PROTECTION A temporary safety rail system attached to the perimeter of a building during installation to prevent roof falls.

FALL The difference in height between two points in the direction of water flow.

FASCIA A timber board or rolled metal panel fixed along the eave to which a gutter is secured.

FASTENER A fixing object designed to bolt, screw, fasten or attach items.

FLASHING The material placed around any roof projection in order to cover and waterproof the join.

GABLE A traditional roof style where two sloping roof planes meet at a ridge line.

GAUGE The thickness or diameter of a small or thin object; such as the thickness of sheet metal or the diameter of a screw.

GUTTER A shallow trough fixed under the roof edge designed to carry water.

HIP ROOF A style of roof with four roof planes which come together at a peak and four separate hip edges.

INSULATION BLANKET A glass-wool layer joined to an impermeable, reinforced, reflective foil facing installed over the roof frame and directly beneath the roof sheeting.

LAP The area where roof sheeting or insulation overlaps one another during installation.

OIL CANNING Undulations or waviness on the surface of otherwise flat metal sheets.

OVERHANG The part of the roof structure which extends horizontally beyond the vertical plane of the exterior wall of a building.

PARAPET A wall on the perimeter of a building that extends above the line of the eaves.

PENETRATION A protrusion; such as a pipe or duct, that goes through the roof sheeting and requires a flashing to be installed around it.

PITCH The slope of a roof or gutter; typically expressed in degrees.

PONDING The pooling of undrained water on a roof.

RAIN HEAD An external gutter pit used to connect downpipes to roof gutters and to provide an external overflow.

RIDGE The horizontal angle on the upper part of the roof where two sloped roof planes meet.

RUN-OFF The water discharge from a surface.

R-VALUE An insulation term for the value given for heat transfer resistance in a roof or wall system.

SARKING/SISALATION A water resistant vapour barrier fixed beneath roof sheeting; commonly a reflective foil.

SKILLION A single sloped roof generally separate from another roof.

SPAN The distance between roof sheeting supports.

SUMP A roof gutter pit used to connect downpipes to internal roof gutters.

SWARF Fine filings or chips of metal generated when cutting or drilling.

TENSILE STRENGTH The maximum amount of pressure a material can be subjected to before breaking.

THERMAL EXPANSION/CONTRACTION The increase or reduction in material due to changes in temperature.

VALLEY The area where two adjoining roof planes intersect creating a V-shaped gully.

VENT An opening which allows air to exit a space.

VENT RIDGE A roof accessory that runs along the roof peak allowing air to enter and exit the roof.

WATER CARRYING CAPACITY A measurement that states the max. amount of water a roof can carry.

WIND LOAD CAPACITY A measurement that states the max. amount of wind speed and associated pressures a building can withstand without failure.

ROOFING & WALLING COLOUR RANGE



STANDARD RANGE





Contemporary Colours

		
Surfmist® SA 0.32 BCA L	Evening Haze® SA 0.43 BCA M	Shale Grey™ SA 0.43 BCA M
		
Dune® SA 0.47 BCA M	Cove™ SA 0.54 BCA M	Windspray® SA 0.58 BCA M
		
Gully™ SA 0.63 BCA D	Mangrove® SA 0.64 BCA D	Wallaby® SA 0.64 BCA D
		
Jasper® SA 0.68 BCA D	Basalt® SA 0.69 BCA D	Ironstone® SA 0.74 BCA D
		
Terrain® SA 0.69 BCA D	Monument® SA 0.73 BCA D	

Classic Colours

	
Classic Cream™ SA 0.32 BCA L	Paperbark® SA 0.42 BCA M
	
Pale Eucalypt® SA 0.60 BCA M	Woodland Grey® SA 0.71 BCA D
	
Deep Ocean® SA 0.75 BCA D	Cottage Green® SA 0.75 BCA D
	
Manor Red® SA 0.69 BCA D	Night Sky® SA 0.96 BCA D

MATT RANGE


Surfmist®Matt SA 0.35 BCA L

Shale Grey™Matt SA 0.45 BCA M

Dune® Matt SA 0.48 BCA M

Basalt®Matt SA 0.71 BCA D

ULTRA RANGE

All colours in the COLORBOND® steel range are available in COLORBOND® Ultra Steel for coastal and industrial requirements. Please enquire with your Metroll representative.

The COLORBOND® steel colour swatches have been reproduced to represent actual product colours as accurately as possible. However, we recommend checking your chosen colour against an actual sample.

To determine the most suitable material for your project, please contact your supplier or see colorbond.com/create.

SA = Solar Absorptance. The classification of colours in the BCA is based on solar absorptance, which is the inverse of solar reflectance, expressed as a ratio between 0 and 1. A value of 0 indicates that a roof absorbs none and a value of 1 indicates that a roof absorbs 100% of the incoming solar radiation. Solar absorptance value is not applicable for COLORBOND® stainless steel.

BCA = The Building Code of Australia (BCA) has classified roof colour on the basis of their solar absorptance, referred herein as Light (L < 0.40), Medium (M < 0.60), Dark (D > 0.60). BCA classification is correct at the time of printing but may be subject to change. Check your local state building regulations at the time of your project.

STANDARD METALLIC RANGE








STANDARD STAINLESS STEEL RANGE






MATERIAL FINISHES

COLORBOND® STEEL

COLORBOND® steel is developed for and therefore more resilient to, the intense sunlight and temperatures typical of Australian environments. BlueScope scientists have tested COLORBOND® steel in some of Australia's harshest climates. COLORBOND® steel is pre-painted for exterior roofing and walling. Painting complies with AS/NZS 2728:2013 and the steel base is an aluminium/zinc alloy-coated steel which complies with AS 1397:2011. Minimum yield strengths are G550 (550 MPa), or G300 (300 MPa) depending on profile. Minimum coating mass is AM100 (100 g/m²).

ZINCALUME® STEEL

Next generation ZINCALUME® steel's patented Activate™ technology introduces magnesium into the aluminium/zinc alloy coating. This improves the galvanic protection by activating the aluminium. The result is a tougher protective coating that is more resistant to scratches and scuffs encountered during the construction process. ZINCALUME® steel complies with AS 1397:2011. Material is G550, AM125 (550 MPa minimum yield stress, 125 g/m² minimum coating mass).

COLORBOND® ULTRA STEEL

While standard COLORBOND® steel will suit most home designs and locations, BlueScope also make specialist grades suited to more demanding environments, like those by the sea or in areas prone to industrial or chemical fumes and fallout. COLORBOND® Ultra is pre-painted steel for severe coastal or industrial environments, (generally within 100 - 200m of the source). The painting complies with AS/NZS 2728:2013 and the steel base is an aluminium/zinc alloy-coated steel which complies with AS 1397:2011. Minimum yield strength is G550 (550 MPa). Minimum coating mass is AM150 (150 g/m²).

COLORBOND® METALLIC STEEL

The COLORBOND® Metallic steel range features an innovative paint technology that boosts its signature lustre effect. The paint type and production method strategically places particles in the paint system to optimise light penetration and colour reflectivity to increase brilliance.

COLORBOND® STAINLESS STEEL

COLORBOND® Stainless is a pre-painted steel for severe coastal or industrial environments. The painting complies with AS/NZS 2728:2013 and the steel base is a stainless steel which complies with AISI/ASTM Type 430; UNS No. S43000 conforming to AS 1397.

GALVSPAN® STEEL

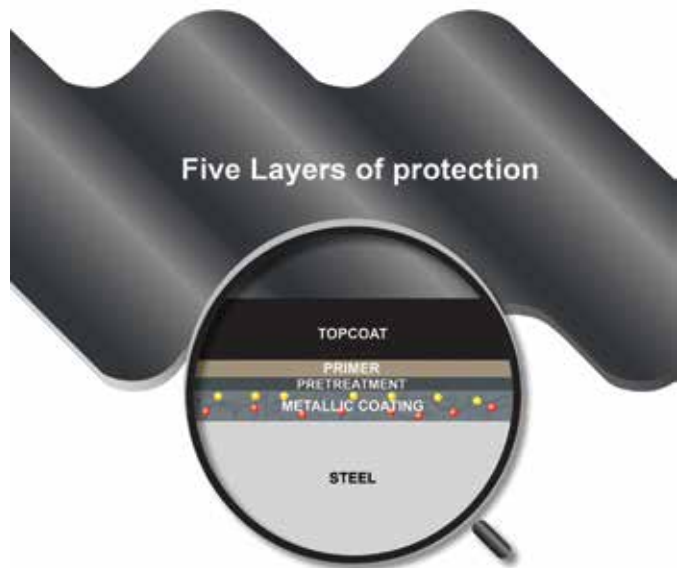
GALVSPAN® steel has been specifically developed for purlins and girts, and is cold formed into a wide range of sizes. Metroll purlins, girts and other structural products are manufactured from hi-tensile galvanised steel (G450, G500 or G550), with a minimum Z350 galvanised coating (350 g/m²) conforming to AS 1397.

FIVE LAYERS OF PROTECTION

Manufactured in Australia to Australian Standards (AS 1397 and AS/NZS 2728), and tested in some of the harshest Australian conditions over the last 50 years, genuine COLORBOND® steel is far more than just 'paint on steel'.

The steel base is manufactured to meet relevant Australian standards ensuring strict adherence to the required grade and strength. The base is then coated in BlueScope's industry leading metallic coating incorporating Activate® technology to provide enhanced corrosion resistance.

A thin pre-treatment layer is applied to optimise the adhesion of further coatings. A corrosion inhibitive primer is baked onto the surface. A top coat of specially developed exterior grade paint is baked on and provides resistance to chipping, flaking and blistering; and to ensure the finish retains its look for longer.



Activate® technology is not available for COLORBOND® stainless, Permagard® or steel products with a galvanised steel substrate.

MATERIAL SELECTION & CORROSION

It is important that the appropriate material is selected for application. Environmental conditions will impact the corrosive nature of each project site. These conditions include the direction of prevailing winds, rainfall amount, temperature, proximity to marine and industrial environments and the amount of exposed area not washed by natural rainfall.

BLUESCOPE® STEEL PRODUCT GUIDE FOR ROOFING IN MARINE ENVIRONMENTS

Severity	Distance From		Recommended Steel Roofing Product
	Breaking Surf/ Exposed Marine	Calm Marine	
Benign	Greater than 1 km		Zincalume® Colorbond®
Moderate	401 - 1000m	201 - 1000m	Coolmax Metallic
Marine	201 - 400m	101 - 200m	Zincalume® Colorbond® Coolmax
Severe Marine	101 - 200m	0 - 100m	Ultra®
Very Severe Marine	0 -100m	N/A	Stainless Steel

Notes:

- This table is sourced from BlueScope Steel TB-1A and is intended as a guide only.
- Absolute performance is subject to local conditions.
- Distance is as measured from the high-water mark.
- Applies to salt marine environments only. Contact BlueScope Steel for installations subject to heavy industrial conditions or internal humidity.
- Refer to BlueScope TB-35 for further information on marine classifications.

MATERIAL COMPATIBILITY TABLES

Roof or Rainwater Material	Direct Material Contact									Drainage from Upper Surface to Lower Surface									
	Accessory, Fastener or Upper Surface									Accessory, Fastener or Upper Surface									
	Zincalume®	Galvanised	Zinc	Colorbond®	CB Stainless Steel	Stainless Steel	Aluminium Alloys	Copper & Alloys	Lead	Zincalume®	Galvanised	Zinc	Colorbond®	CB Stainless Steel	Stainless Steel	Aluminium Alloys	Copper & Alloys	Lead	Roof Tiles, Glass, Plastic
Zincalume®	✓	✓	✓	✓	✗	✗	✓	✗	✗	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓
Galvanised	✓	✓	✓	✓	✗	✗	✓	✗	✗	✗	✓	✓	✗	✗	✗	✗	✗	✓	✗
Zinc	✓	✓	✓	✓	✗	✗	✓	✗	✗	✗	✓	✓	✗	✗	✗	✗	✗	✓	✗
Colorbond®	✓	✓	✓	✓	✗	✗	✓	✗	✗	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓
Colorbond® Stainless Steel	✗	✗	✗	✗	✓	✓	✗	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Stainless Steel	✗	✗	✗	✗	✓	✓	✗	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Aluminium Alloys	✓	✓	✓	✓	✗	✗	✓	✗	✗	✓	✓	✓	✓	✓	✓	✓	✗	✗	✓
Copper & Alloys (C&A)	✗	✗	✗	✗	✗	✗	✗	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Lead (L)	✗	✗	✗	✗	✗	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

*CB = Colorbond®

CORROSIVE PATH

Coated steel products can be damaged by contact with or run-off from some metals, treated timbers and chemicals. If any of the two metals listed here are in contact or a run-off situation, the metal higher in the table will corrode to protect the metal lower in the table. A simple rule to note is to remember that you can run water downhill but not up, e.g. Zinc to Copper is fine but Copper to Zinc is not.



Magnesium
Zinc
Zincalume
Aluminium
Cadmium
Steel
Lead
Tin
Nickel
Brass
Copper



NEVER USE BLACK LEAD PENCILS

Black lead pencils can be a problem, not because they have lead in them, but rather because they haven't any lead in them. Lead pencils are now made from graphite and clay; and graphite is a form of carbon. When placed in contact with most metals, this creates an electric cell when wet. This cell acts like a battery and eats away at the metal surface leaving an indelible mark. The trick is to use any other coloured pencil - except black.

ZINCALUME® OR GALVANISED?

Not sure if it's ZINCALUME® or galvanised steel? If in doubt submit the surface to the acid test:

1. Clean the surface area of the steel.
2. Apply a single drop of spirits of salts (muriatic or hydrochloric acid) at about 1/3 strength.
3. If the surface stays clean the material is galvanised, if it turns black it is ZINCALUME®.

ROOFING & WALLING PRODUCT TABLES

ROOFING

PROFILE	BMT mm	Steel Base Mpa	CB* Mass Kg/m ²	Zinc Mass Kg/m ²	Cover Width mm	Profile Depth mm	Min. Pitch°	Max. Spans mm	
								End	Internal
Corodek®	0.42	G550	4.35	4.28	762	16	5 (1 in 12)	900	1200
	0.48	G550	4.93	4.81	762	16	5 (1 in 12)	1200	1600
	0.60	G300	6.09	6.02	762	16	5 (1 in 12)	1600	1800
Trimclad®	0.42	G550	4.35	4.28	762	29	2 (1 in 30)	1300	1700
	0.48	G550	4.93	4.81	762	29	2 (1 in 30)	1700	2300
Metrospan®	0.42	G550	4.74	4.66	700	24	2 (1 in 30)	1800	2400
	0.48	G550	5.37	5.23	700	24	2 (1 in 30)	2200	3000
Metlok 700®	0.42	G550	4.74	4.66	700	40	1 (1 in 50)	1800	2200
	0.48	G550	5.37	5.23	700	40	1 (1 in 50)	2200	2800

WALLING

PROFILE	BMT mm	Steel Base Mpa	CB* Mass Kg/m ²	Zinc Mass Kg/m ²	Cover Width mm	Profile Depth mm	Max. Spans mm	
							End	Internal
Corodek®	0.42	G550	4.35	4.28	762	16	1850	2350
	0.48	G550	4.93	4.81	762	16	2050	2450
	0.60	G300	6.09	6.02	762	16	2200	2650
Trimclad®	0.35	G550	3.68	3.70	762	29	2900	3000
	0.42	G550	4.35	4.28	762	29	3000	3000
Metrospan®	0.42	G550	4.74	4.66	700	24	2250	2750
	0.48	G550	5.37	5.29	700	24	2450	3000
Metlok 700®	0.42	G550	4.74	4.66	700	40	1800	2200
	0.48	G550	5.37	5.23	700	40	2200	2800
Metroclad®	0.35	G550	3.30	3.32	850	12	1250	1500
	0.42	G550	3.90	3.83	850	12	1400	1700
Mini Corodek®	0.42	G550	4.02	3.95	825	6	1000	1200
	0.48	G550	4.56	4.44	825	6	1000	1200
Metrib®	0.42	G550	3.90	3.95	850	4	1000	1200
	0.48	G550	4.42	4.50	850	4	1000	1200

*CB = Colorbond®

SHEET COVERAGE BY PROFILE

METROSPAN®
Cover: 700mm

Roof Width (m)	Sheets	Sheets	Cover (m)
3	5	3	2.1
4	6	4	2.8
5	8	5	3.5
6	9	6	4.2
7	10	7	4.9
8	12	8	5.6
9	13	9	6.3
10	15	10	7.0
11	16	11	7.7
12	18	12	8.4
13	19	13	9.1
14	20	14	9.8
15	22	15	10.5
16	23	16	11.2
17	25	17	11.9
18	26	18	12.6
19	28	19	13.3
20	29	20	14.0

CORODEK®
Cover: 762mm

Roof Width (m)	Sheets	Sheets	Cover (m)
3	4	3	2.3
4	6	4	3.0
5	7	5	3.8
6	8	6	4.6
7	10	7	5.3
8	11	8	6.1
9	12	9	6.9
10	14	10	7.6
11	15	11	8.4
12	16	12	9.1
13	18	13	9.9
14	19	14	10.7
15	20	15	11.4
16	21	16	12.2
17	23	17	13.0
18	24	18	13.7
19	25	19	14.5
20	27	20	15.2

METROCLAD®
Cover: 850mm

Roof Width (m)	Sheets	Sheets	Cover (m)
3	4	3	2.6
4	5	4	3.4
5	6	5	4.3
6	8	6	5.1
7	9	7	6.0
8	10	8	6.8
9	11	9	7.7
10	12	10	8.5
11	14	11	9.4
12	15	12	10.2
13	16	13	11.1
14	17	14	11.9
15	18	15	12.8
16	20	16	13.6
17	21	17	14.5
18	22	18	15.3
19	23	19	16.2
20	24	20	17.0

METLOK 700®
Cover: 700mm

Roof Width (m)	Sheets	Sheets	Cover (m)
3	5	3	2.1
4	6	4	2.8
5	8	5	3.5
6	9	6	4.2
7	10	7	4.9
8	12	8	5.6
9	13	9	6.3
10	15	10	7.0
11	16	11	7.7
12	18	12	8.4
13	19	13	9.1
14	20	14	9.8
15	22	15	10.5
16	23	16	11.2
17	25	17	11.9
18	26	18	12.6
19	28	19	13.3
20	29	20	14.0

TRIMCLAD®
Cover: 762mm

Roof Width (m)	Sheets	Sheets	Cover (m)
3	4	3	2.3
4	6	4	3.0
5	7	5	3.8
6	8	6	4.6
7	10	7	5.3
8	11	8	6.1
9	12	9	6.9
10	14	10	7.6
11	15	11	8.4
12	16	12	9.1
13	18	13	9.9
14	19	14	10.7
15	20	15	11.4
16	21	16	12.2
17	23	17	13.0
18	24	18	13.7
19	25	19	14.5
20	27	20	15.2

METRIB®
Cover: 850mm

Roof Width (m)	Sheets	Sheets	Cover (m)
3	4	3	2.6
4	5	4	3.4
5	6	5	4.3
6	8	6	5.1
7	9	7	6.0
8	10	8	6.8
9	11	9	7.7
10	12	10	8.5
11	14	11	9.4
12	15	12	10.2
13	16	13	11.1
14	17	14	11.9
15	18	15	12.8
16	20	16	13.6
17	21	17	14.5
18	22	18	15.3
19	23	19	16.2
20	24	20	17.0

FASTENER SELECTION GUIDES

CORRUGATED PROFILES







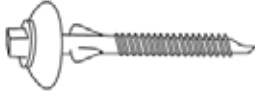
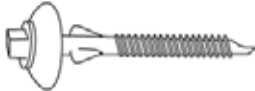
	NON-CYCLONIC FIXING		CYCLONIC FIXING		
	Valley Fix	Crest Fix	Valley Fix	Crest Fix	Ridge Cap Fix
Fix to Timber Supports	 RoofZIPS® M6 - 11 x 25 Hd/Seal 6-030-3308-3C4	 RoofZIPS® M6 - 11 x 50 Hd/Seal 6-030-3306-1C4	 14 - 10 x 25mm Hex Hd SL Type 17 6-030-3007-4C4	 14 - 10 x 50mm Hex Hd Roof-Lok® Type 17 6-030-3633-2C4	 14 - 10 x 50mm 25mm Multiseal Assy Type 17 6-030-3093-2C4
Fix to Metal Supports 0.42 - 1.5mm	 RoofZIPS® M6 - 11 x 25 Hd/Seal 6-030-3308-3C4	 RoofZIPS® M6 - 11 x 50 Hd/Seal 6-030-3306-1C4	 RoofZIPS® M6 - 11 x 25 Hd/Seal 6-030-3308-3C4	 RoofZIPS® M6.5 - 12 x 55mm Roof-lok® Cyl Assy 6-030-3331-1C4	 RoofZIPS® M6.5 - 12 x 55mm Multiseal Assy 6-030-3333-3C4
Fix to Steel Supports 1.5 - 4.5mm	 10 - 16 x 16mm Hex Hd SL Tek® 6-310-3117-5Z4	 M5.5 x 39mm AutoTek® 6-310-3637-7C4	 14 - 10 x 25mm Hex Hd SL Metal Tek® 6-310-3637-7C4	 14 - 10 x 53mm Hex Hd Roof-Lok® Metal Tek® 6-310-3162-2C4	 14 - 10 x 53mm 25mm Ridge Cap Assy Metal Tek® 6-310-3150-2C4

SQUARE RIB PROFILES



	NON-CYCLONIC FIXING		CYCLONIC FIXING		
	Valley Fix	Crest Fix	Valley Fix	Crest Fix	Ridge Cap Fix
Fix to Timber Supports	 RoofZIPS® M6 - 11 x 25 Hd/Seal 6-030-3308-3C4	 RoofZIPS® M6 - 11 x 65mm 6-030-3307-2C4	 14 - 10 x 25mm Hex Hd Seal Type 17 6-031-3007-4C4	 14 - 10 x 65mm Roof-Lok® Type 17 6-030-3655-7C4	 14 - 10 x 65mm Multiseal Assy Type 17 6-030-3088-6C4
Fix to Metal Supports 0.42 - 1.5mm	 RoofZIPS® M6 - 11 x 25 Hd/Seal 6-030-3308-3C4	 RoofZIPS® M6 - 11 x 50 Hd/Seal 6-030-3306-1C4	 RoofZIPS® M6 - 11 x 25 Hd/Seal 6-030-3308-3C4	 RoofZIPS® M6.5 - 12 x 55mm Roof-lok® 6-030-3332-2C4	 RoofZIPS® M6.5 - 12 x 55mm Multiseal Assy 6-030-3333-3C4
Fix to Steel Supports 1.5 - 4.5mm	 10 - 16 x 16mm Hex Hd SL Tek® 6-310-3117-5Z4	 M5.5 x 50mm AutoTek® 6-310-3579-4C4	 14 - 10 x 25mm Hex Hd SL Metal Tek® 6-310-3323-5C4	 14 - 10 x 50mm Roof-Lok® Metal Tek® 6-310-3164-2C4	 14 - 10 x 53mm 25mm Ridge Cap Assy Metal Tek® 6-310-3150-2C4

FASTENER SELECTION GUIDES

Approx. Fasteners per m ²			
Mini Corodek®	5 - 6	Fix to Timber Supports & Steel 1 - 3mm BMT  M4.8 x 25mm RippleZIPS® 6-031-3341-1C4	
Metlok 700®	3 per clip	Fix to Timber Supports  10 - 12 x 25mm Hex Hd Type 17 6-031-3053-3C4	Fix to Steel < 2.5mm BMT 10 - 16 x 16mm Hex Hd Self Drilling 6-311-3151-1C4
			Fix to Steel 2.5 to 5mm BMT 12 - 14 x 30mm Hex Hd Self Drilling 6-311-0473-1CS
Roofing Battens	8	Fix to Timber Supports  M5.5 x 40mm Hex Hd BattenZIPS® 6-311-0610-1MP	Fix to Steel 1 - 4mm BMT  12 - 14 x 20mm Hex Hd Metal Tek® 6-311-3097-1Z4
		Fix: Roof profile heights 16 to 24mm to timber battens; Fix roof profile heights 16 to 29mm to metal batten & purlins up to 1.6mm  PolyZIPS® M6.5 - 14 x 50mm Hex Hd 6-030-0316-6CS	
Polycarbonate Roofing	See sheeting manufacturers recommendation		
Fibreglass Roofing	See sheeting manufacturers recommendation	Fix roof profile heights 18 to 29mm to purlins 1.2 to 5mm Fibreglass Tek® M6.5 - 14 x 65mm Hex Hd 6-310-0607-7CS	Fix roof profile heights 40 to 62.5mm to purlins 1.2 to 5mm Fibreglass Tek® M6.5 - 14 x 85mm Hex Hd 6-310-0626-6CS
			

All fasteners to be installed as per manufacturers recommendations. This guide outlines only the most frequently used screw assemblies. The screw length may vary depending on the actual profile and the type of insulation system used. These recommendations should always be considered in conjunction with the roof manufacturers fixing specifications. All detail assumes standard insulation of 50mm.

FASTENER QUANTITY GUIDE

PROFILE	Fasteners per sheet width	Sheet Cover (mm)	FASTENERS PER m ²					
			Typical Support Spacings (mm)					
			450	600	900	1200	1500	1600
Corodek®	3	762	9	7	5	4	3	3
	5		15	11	8	6	5	4
Trimclad®	4	762	12	9	6	5	4	3
Metrospan®	3	700	10	8	5	4	3	3
	4		13	10	6	5	4	3
Metlok 700®	3 per clip	700			2	1	1	1
Metroclad®	4	850	11	8	6	4	4	3
Mini Corodek®	6	850	17	13	9	7	5	5
	11		30	22	15	11	9	7
Metrib®	4	850	11	8	6	4	4	3
	8		21	16	10	8	6	6

DRAINAGE & OVERFLOW

MAXIMUM ROOF RUNS (m) FOR SLOPES & RAINFALL INTENSITIES

Profile	Intensity mm/Hr	Roof Slope					
		1 in 50 1°	1 in 30 2°	1 in 20 3°	1 in 12 5°	1 in 7.5 7.5°	1 in 6 10°
Corodek®	100				29	34	38
	150				20	23	25
	200				15	17	19
	250				12	14	15
	300				10	11	13
	400				7	8	10
Trimclad®	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
Metrospan®	100		97	111	133	154	173
	150		65	74	89	103	115
	200		49	55	67	77	86
	250		39	44	53	62	69
	300		32	37	44	51	58
	400		24	28	33	39	43
Metlok 700®	100	245	306	365	442	355	610
	150	166	210	245	306	357	416
	200	122	158	179	225	265	310
	250	101	125	142	180	212	250
	300	82	103	120	155	170	210
	400	76	92	107	136	160	186

- 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 ends laps, expansion joints or steps and draining the roof in one direction, shall be considered a single roof run.
- Thermal expansion must also be considered.
- Maximum production and transportation lengths may limit availability.

RAINFALL DURATION INTENSITIES (mm/Hr)

		5 min. Rainfall Intensity				5 min. Rainfall Intensity		
		Once in 20 years	Once in 100 years			Once in 20 years	Once in 100 years	
ACT	Canberra	143	193	SA	Adelaide	124	184	
	Gungahlin	137	179		Gawler	110	158	
	Tuggeranong	148	210		Mt. Gambler	103	144	
NSW	Albany	139	180		Murray Bridge	120	178	
	Broken Hill	143	219		Port Augusta	133	199	
	Goulburn	121	156		Port Pirie	122	181	
	Kiama	226	319		Yorke town	155	166	
	Newcastle	226	319		TAS	Burnie	128	180
	Orange	142	186			Flinders Island	122	165
	Sydney	200	262			Hobart	85	116
	Avalon	206	278	Launceston		90	121	
	Campbeltown	167	222	Queenstown		94	120	
	Penrith	180	244	St Marys		146	203	
	Windsor	175	233	VIC	Ballarat	131	188	
	Tweed Heads	252	330		Benalla	146	194	
	Wollongong	217	308		Geelong	102	144	
	NT	Alice Springs	166		239	Horsham	120	173
Darwin		233	274		Lake Entrance	145	198	
Katherine		216	250		Melbourne	132	187	
QLD	Bamaga	252	298		Hastings	117	145	
	Brisbane	234	305		Sorrento	106	140	
	Ipswich	211	278		Mildura	142	218	
	Victoria Point	245	320		Stawell	130	186	
	Bundaberg	265	340	WA	Albany	125	178	
	Cairns	229	278		Broome	232	287	
	Concurry	218	278		Bunbury	147	199	
	Innisfail	248	301		Derby	211	256	
	Mackay	250	316		Geraldton	138	193	
	Mt. Isa	199	260		Kalgoorlie	137	204	
	Noosa Heads	258	331		Perth	130	172	
	Rockhampton	229	300		Joondalup	133	180	
	Toowoomba	203	268		Midland	122	163	
	Townsville	235	300		Port Headland	168	230	
	Weipa	239	283	Tom Price	138	182		

Source: National Construction Code. Table 3.5.2.1

GUTTER OVERFLOW

RAINWATER OVERFLOW PROVISIONS

The NCC 2016 Part 3.5.2 sets out the appropriate performance requirements for overflow measures of eave and valley gutters. This was updated in May 2016 and incorporates the requirements for rainfall intensities for 1 in 20 year and 1 in 100 year intervals in locations across Australia.

It is important that the drainage system diverts water away from the building. Part 3.5.2 of the NCC 2016 sets out the acceptable construction practice and gives consideration to materials, gutter selection, gutter installation and downpipe size and installation. The code also provides detail on rainfall duration intensities, gutter and downpipe selection, overflow volumes and acceptable overflow measures both continuous and dedicated.

It is important to note that a combination of overflow measures may be required in order to achieve a complying drainage system. As high fronted gutters have become very popular, overflow systems must be considered in the totality of the drainage system as relying on gutter capacity alone may not be sufficient.

DESIGNER RESPONSIBILITY

The designer may be the builder, hydraulic engineer, architect, building designer, roofing and guttering contractor or home owner. It is up to the designer to design a complete rainwater drainage system that meets the relevant requirements of the NCC Building Code and relevant Australian Standards. Designers should take note of AS/NZS 3500.3 and AS/NZS 3500.5.

Broadly, the steps a roof drainage designer takes are as follows:

- Ascertain duration of rainfall intensity.
- Consider the roof design, roof catchment area, slope, number and positions of downpipes, length of gutter, ridge to gutter length etc.
- Calculate the overflow volume.
- Select downpipes, gutters and overflow measures that are suitable based on the required overflow volume.

INSTALLER RESPONSIBILITY

The installer is responsible for installing the rainwater drainage system as per the design provided by the designer. Section 3.5.2.4 of the NCC 2016 sets out the minimum requirements for the installation of gutters.

HOMEOWNER RESPONSIBILITY

A rainwater drainage system is only as good as the maintenance of the system. Blocked gutters, downpipes or other overflow items will negatively impact on the performance of the drainage system. The homeowner is responsible for ensuring basic maintenance of the system is carried out at regular intervals.

RAINWATER OVERFLOW DESIGN & PROVISION

NCC: Table 3.5.2.4 ACCEPTABLE OVERFLOW MEASURES

Note: Extracted directly from the NCC. (L/s/m = Litres per second per metre)

TABLE A: ACCEPTABLE CONTINUOUS OVERFLOW MEASURES

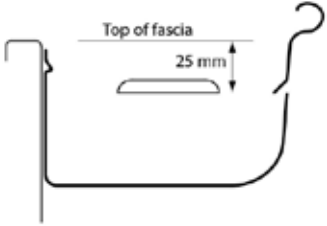
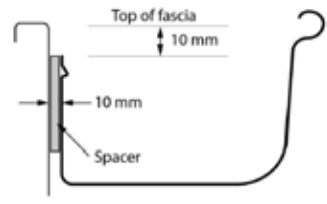
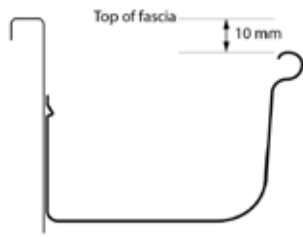
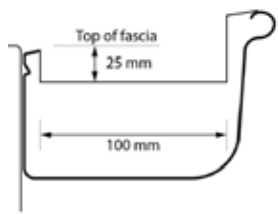
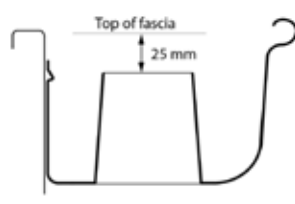
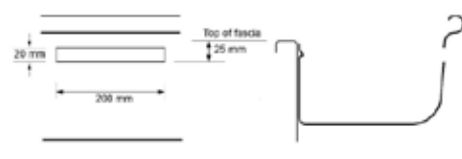
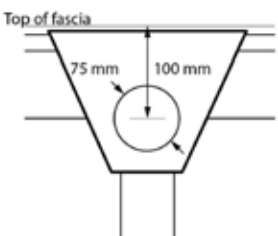
	Overflow Capacity (L/s/m)	
<p>Front face slotted gutter with;</p> <p>a. A minimum slot opening area of 1200mm² per metre gutter; and</p> <p>b. The lower edge of the slots is installed a minimum of 25mm below the fascia.</p>	0.50	
<p>Controlled back gap with;</p> <p>a. A permanent minimum 10mm spacer installed between the gutter back and fascia; and</p> <p>b. One spacer per bracket, with the spacer not more than 50mm wide; and</p> <p>c. The back of the gutter installed a minimum of 10mm below the fascia.</p>	1.50	
<p>Controlled front bead height;</p> <p>a. The front bead of the gutter installed a minimum 10mm below the top of the fascia.</p>	1.50	

TABLE B: ACCEPTABLE DEDICATED OVERFLOW MEASURES PER DOWNPIPE

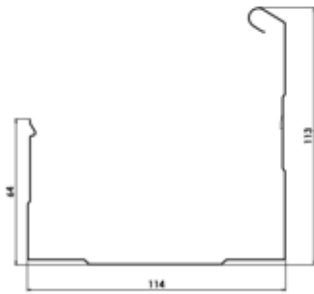
<p>End-stop weir with;</p> <p>a. A minimum clear width of 100mm; and</p> <p>b. The weir edge installed a minimum of 25mm below the fascia.</p>	0.50	
<p>Inverted nozzle installed within 500mm of a gutter high point with;</p> <p>a. A minimum nozzle size of 100mm x 50mm positioned lengthways in the gutter; and</p> <p>b. The top of the nozzle installed a minimum of 25mm below the top of the fascia.</p>	1.2	
<p>Front race weir with;</p> <p>a. A minimum clear width of 200mm; and</p> <p>b. A minimum clear height of 20mm; and</p> <p>c. The weir edge installed a minimum of 25mm below the top of the fascia.</p>	1.0	
<p>Rainhead with;</p> <p>a. A 75mm diameter hole in the outward face of the rainhead; and</p> <p>b. The centreline of the hole positioned 100mm below the top of the fascia.</p>	3.5	

METROLL GUTTER PROFILES

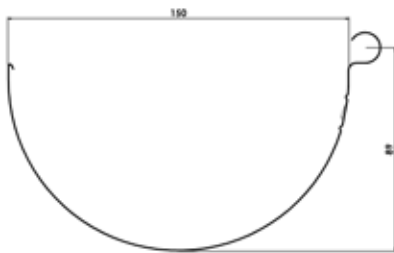
There may be variations in dimensions across Metroll's manufacturing locations. Check with your local Metroll branch for dimensions, lead times and availability.

TCA = Total Cross Sectional Area

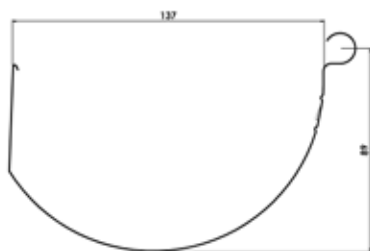
ECA = Effective Cross Sectional Area. ECA is calculated as per AS/NZS 2179:2014 and is 10mm below the overflow level.



METROLINE SQUARE GUTTER QLD, NSW, VIC	TCA mm ²	ECA mm ²
Standard	6,971	5,874
Slotted	6,305	5,202

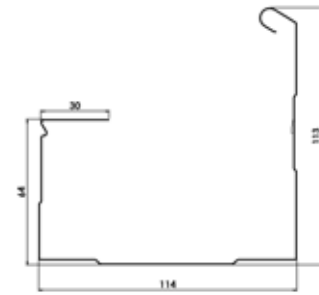


150 HALF ROUND GUTTER QLD, NSW, VIC	TCA mm ²	ECA mm ²
Standard	9,791	8,303
Slotted	6,232	4,811

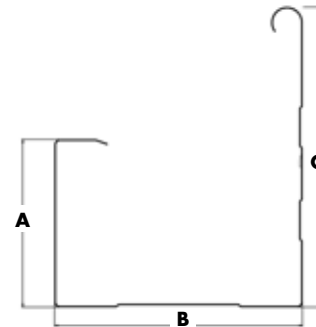


SKYLINE GUTTER* QLD, NSW, VIC	TCA mm ²	ECA mm ²
Standard	9,364	8,005
Slotted	6,039	4,706

* Suitable for use with Graptor Bracket.



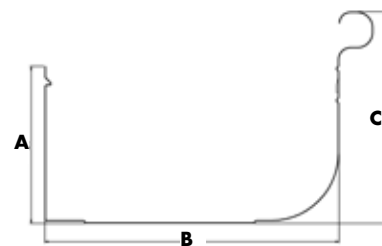
METROLINE FASCIA GUTTER QLD, VIC	TCA mm ²	ECA mm ²
Standard	6,971	5,874
Slotted	6,305	5,202



SQUARELINE GUTTER

VIC, WA

MODEL	DIMENSIONS MM			ECA mm ²		TCA mm ²	
	A	B	C	STD	SLTD	STD	SLTD
WA	81	120	145	8,302	6,734	9,471	7,923
Standard VIC	65	127	122	6,800	5,800	8,000	7,100
Commercial VIC	83	125	136	-	8,210	-	9,450
Fascia Gutter VIC	60	127	121	6,310	5,840	7,570	7,100



HIGH FRONT QUAD GUTTER

NT, QLD, NSW, VIC, TAS, SA

MODEL	DIMENSIONS MM			ECA mm ²		TCA mm ²	
	A	B	C	STD	SLTD	STD	SLTD
115*	61	115	90	5,529	4,763	6,660	5,895
125*	68	107	94	5,837	4,939	6,895	5,991
150**	69	130	93	7,298	5,852	8,578	7,137
175	71	160	99	9,389	7,617	10,970	9,204

* Suitable for use with Graptor Bracket.

** 150 model suitable use with Graptor Bracket in QLD only

GRAPTOR BRACKET

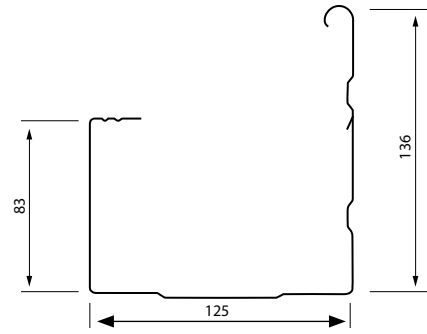
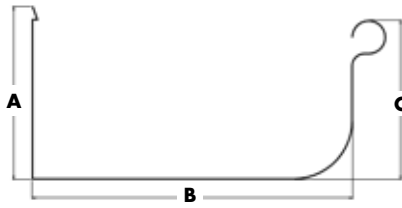
The Graptor bracket offers a compliant solution for the mandatory gutter overflow requirements of the NCC 2019, Part 3.5.2, by way of a controlled back gap between the fascia and the back of the gutter. The Graptor is suitable for use with the Skyline Gutter, 115 High Front Quad Gutter, 125 High Front Quad Gutter and 150 High Front Quad Gutter (QLD only).



METROLL GUTTER PROFILES

TCA = Total Cross Sectional Area

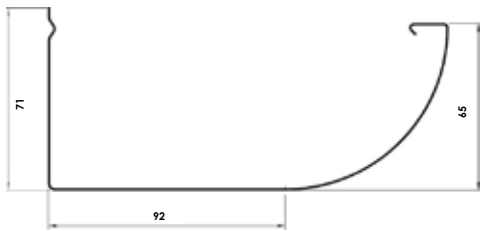
ECA = Effective Cross Sectional Area. ECA is calculated as per AS/NZS 2179:2014 and is 10mm below the overflow level.



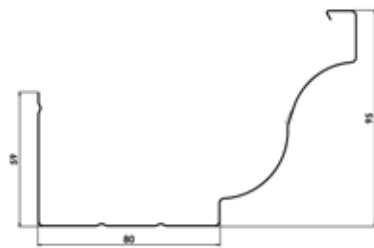
NEWCASTLE FASCIA GUTTER NSW	TCA mm ²	ECA mm ²
Standard	10,312	9,062
Slotted	9,687	8,437

LOW FRONT QUAD GUTTER QLD, Newcastle

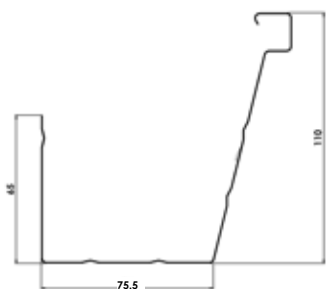
MODEL	DIMENSIONS MM			TCA mm ²	
	A	B	C	STD	STD
115	58	113	61	5,367	6,497
150	76	141	70	8,239	9,762
175	105	175	100	15,430	17,297



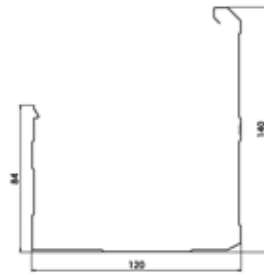
SMARTLINE GUTTER WA	TCA mm ²	ECA mm ²
Standard	9,057	7,518



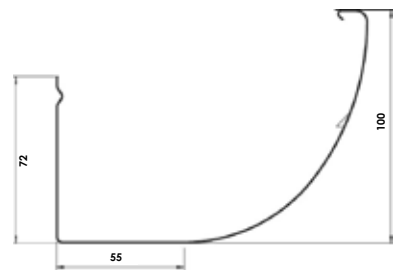
ROOFLINE COLONIAL GUTTER WA	TCA mm ²	ECA mm ²
Standard	5,849	4,729
Slotted	4,329	3,222



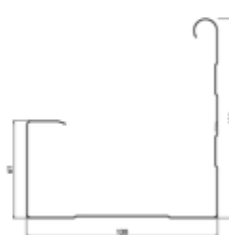
EAVESLINE GUTTER WA	TCA mm ²	ECA mm ²
Standard	5,339	4,453
Slotted	3,555	2,714



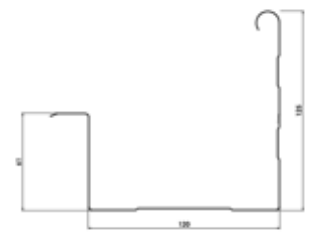
BIG M GUTTER QLD	TCA mm ²	ECA mm ²
Standard	9,727	8,564
Slotted	7,813	6,634



QUARTER ROUND GUTTER WA	TCA mm ²	ECA mm ²
Standard	7,849	6,567
Slotted	5,127	3,920



PATILINE

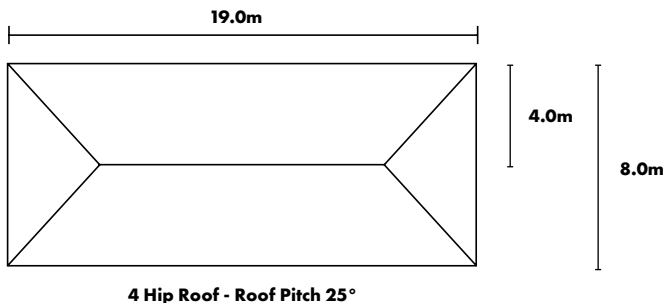


QUICKFIX

PATILINE & QUICKFIX GUTTERS WA	TCA mm ²	ECA mm ²
Patiline Standard	7,097	5,924
Quickfix Standard	7,108	5,918
Patiline & Quickfix Slotted	6,378	5,195

ROOF PITCH & QUANTITY ESTIMATOR

IMPORTANT NOTE This detail is used for quick estimating purposes only. Exact measurements must be taken from the actual roof frame prior to ordering any roof sheeting or accessories.



CALCULATING ROOF AREA

Multiply the length of the roof by the width and then multiply by the roof pitch factor to increase plan area.

Example: For 25° factor = 1.103
 $19 \times 8 = 152\text{m}^2$
 $152 \times 1.103 = 169.56\text{m}^2$

CALCULATING SHEET LENGTH

Measure from ridge to fascia on the plan (e.g. 4.000), multiply by factor to increase plan area.

Example: For 25° factor = 1.103
 $4 \times 1.103 = 4.412$ Lm (Rafter length)
 Add 50mm (Fall to gutter)
 Sheet Length = 4.462

CALCULATING HIP & VALLEY LENGTH

Measure from ridge to fascia on the plan (e.g. 4.000), multiply by factor to determine length of hip.

Example: For 25° factor = 1.489
 $4 \times 1.489 = 5.956$ Lm (Rafter length)
 Add 50mm (Fall to gutter)
 Hip Cover = 6.006 Lm Ridge Flashing.

Note: All ridges that run 90° or parallel to fascia can simply be scaled off roof plan for actual roof length.

Roof Pitch°	Factor to increase plan area of Roof	Factor to determine length of Hip per units of 1 across span
1	1.000	1.414
2	1.001	1.415
3	1.001	1.415
4	1.002	1.416
5	1.004	1.417
6	1.006	1.418
7	1.008	1.420
8	1.010	1.421
9	1.012	1.423
10	1.015	1.425
11	1.019	1.428

Roof Pitch°	Factor to increase plan area of Roof	Factor to determine length of Hip per units of 1 across span
12	1.022	1.430
13	1.026	1.433
14	1.031	1.436
15	1.035	1.439
16	1.040	1.442
17	1.046	1.447
18	1.051	1.451
19	1.058	1.456
20	1.064	1.460
21	1.071	1.465
22	1.079	1.471
23	1.086	1.477
24	1.095	1.483
25	1.103	1.489
26	1.113	1.496
27	1.122	1.503
28	1.133	1.511
29	1.143	1.519
30	1.155	1.528
31	1.167	1.537
32	1.179	1.546
33	1.192	1.556
34	1.206	1.567
35	1.221	1.578
36	1.236	1.590
37	1.252	1.602
38	1.269	1.616
39	1.287	1.630
40	1.305	1.644
41	1.325	1.660
42	1.346	1.677
43	1.367	1.694
44	1.390	1.712
45	1.414	1.732
46	1.440	1.753
47	1.466	1.775
48	1.494	1.798
49	1.524	1.823
50	1.556	1.849
51	1.589	1.877
52	1.624	1.907
53	1.662	1.939
54	1.701	1.973
55	1.743	2.010
56	1.788	2.049
57	1.836	2.091
58	1.887	2.136
59	1.942	2.184
60	2.00	2.236

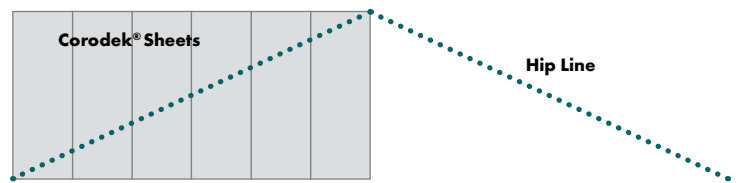
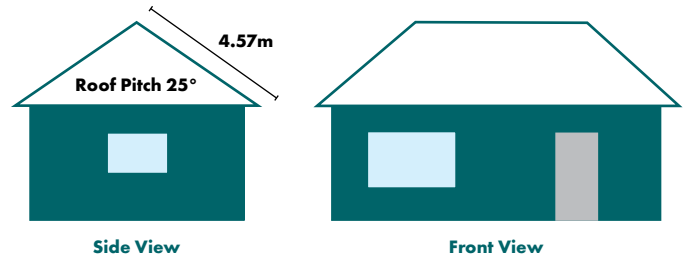
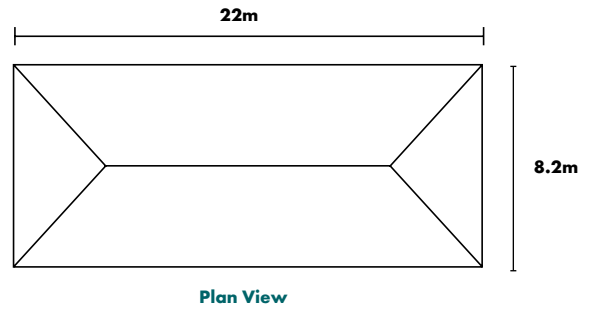
QUANTITY ESTIMATOR EXAMPLES

A. How to calculate a Hip Roof & minimise material wastage

This example uses Corodek®.

To determine the quantity of roof sheets for the sample house illustrated here:

1. Check the plan for the roof type and pitch.
2. Divide 22m by the sheet cover width (Corodek® Sheets have an effective cover of 762mm)
 $22000\text{mm} \div 762\text{mm} = 28.8 \text{ sheets} = 29 \text{ sheets.}$
3. Multiply x 2 to cover both sides of the roof = 58 sheets.
4. Length of sheets required is 4570mm. Therefore the sheeting required for this project is 58 sheets at 4570mm.
5. On an equal hip roof as shown, ordering the sheets at one length will eliminate wastage.
6. As shown in the diagram, when the sheets are cut along the hip line the surplus sheeting can be used on the reverse corner of the roof.

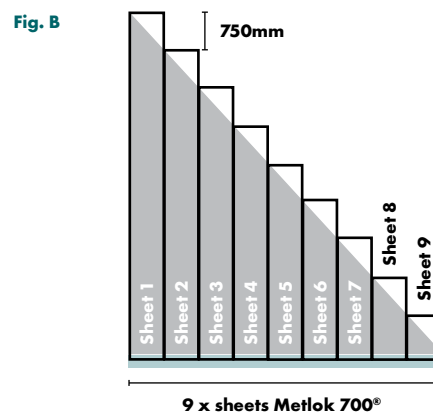
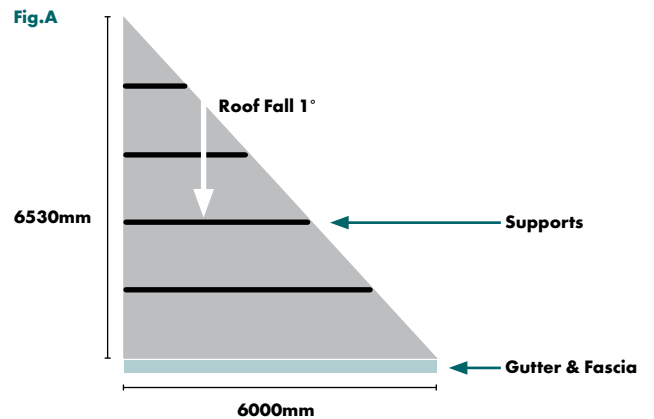


B. How to calculate an irregular sized roof & minimise material wastage

This example uses Metlok 700® sheets with an effective cover of 700mm.

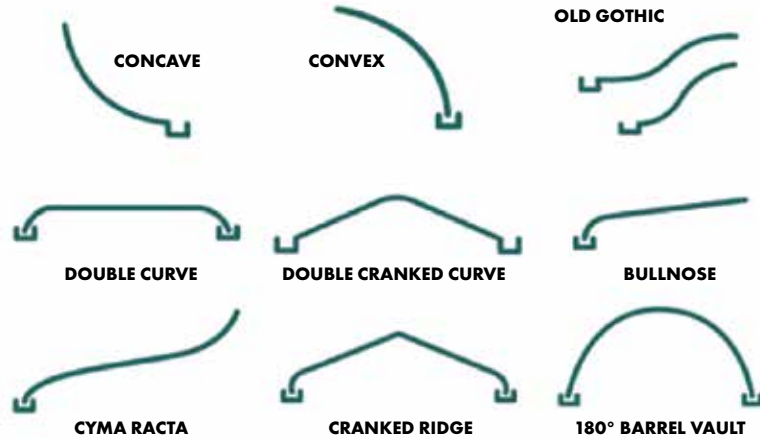
1. Check the plan for the roof type and pitch.
2. To determine the quantity of roof sheets required, divide roof cover by sheet cover width
 $6000\text{mm} \div 700\text{mm} = 8.57 \text{ sheets} = 9 \text{ sheets}$
3. As per Fig. A, this roof tapers from 6530 mm to 0mm. Ensure gutter overhang and fascia thickness are added to the sheet length
 $6530\text{mm} + 70\text{mm} = 6600\text{mm}$
4. To work out the sheet steps required (Fig.B), divide the sheet length by the sheet quantity
 $6600\text{mm} \div 9 \text{ sheets} = 750\text{mm}$
5. Each sheet starting from 6600 will be 750mm shorter than the previous sheet, e.g:

Sheet 1	6600mm	Sheet 6	2850mm
Sheet 2	5850mm	Sheet 7	2100mm
Sheet 3	5100mm	Sheet 8	1350mm
Sheet 4	4350mm	Sheet 9	600mm
Sheet 5	3600mm		

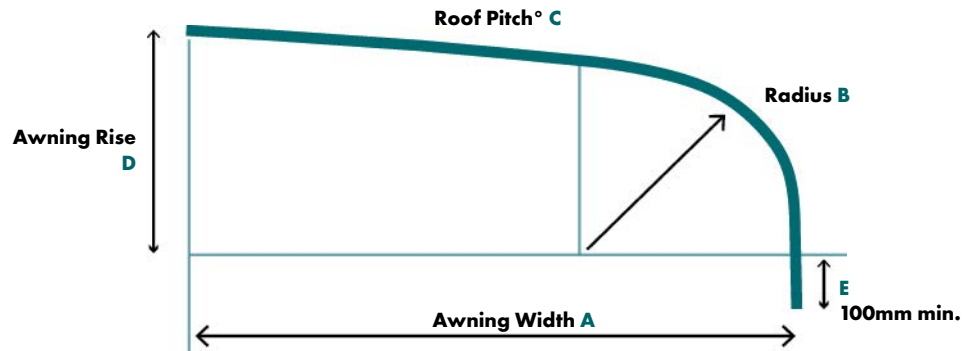


CURVING & BULLNOSING

Curving Styles



Curving Details



Details required when curving:

1. Awning Width (A)
2. Radius (B)
3. Roof Pitch° (C)
4. Awning Rise (D)
5. Straight Vertical Lead (E)
6. Number of sheets required
7. Sheet Length
8. Colour or Finish
9. Stipulate Colour Underside or Topside
10. Direction of Laying L to R or R to L
11. Does the bullnose sheet end lap a straight sheet? Y or N
12. Is a template supplied? Y or N

Note: Metroll takes no responsibility for variances on sheets curved from drawings. A template should be supplied to ensure accuracy. The minimum recommended curving radius is 450mm.

THERMAL EXPANSION

Change in temperature will cause all metals to expand and contract. There is a minimal effect with steel roofing and cladding, however care must be taken when long sheet runs are proposed and high temperature variations occur.

Metroll recommends the following maximum roof runs for pierce fixed roofing or cladding

Profile	Dark Colours	Light Colours
Corodek®	Up to 17m	Up to 24m
Trimclad®		
Metrospan®		

FLASHINGS

Metroll offers a comprehensive selection of flashings, barge ends, corner trims and foot moulds. These are manufactured to enhance the appearance and functionality of all Metroll gutter, cladding, roofing and building products.

Metroll offers custom made or standard flashings which are available in a selection of materials to suit your building requirements.

Flashings come in a large range of COLORBOND®, ZINCALUME® and galvanised steels. These come in various widths to a maximum of 1200mm.

CUSTOM MADE FLASHINGS

HOW TO ORDER

1. Choose the appropriate profile number, material thickness and finish.
2. Should COLORBOND® steel be required, nominate which side the colour is to be.
3. Specify the measurement for each letter shown.
4. Specify the angle where applicable.
5. Specify direction for tapered flashings.
6. Specify the quantity and length applicable to each profile.



CORNER MOULD



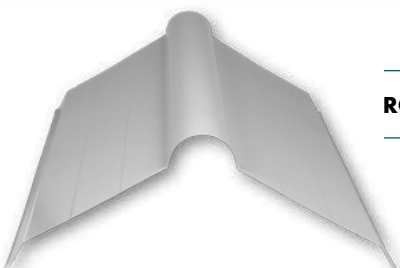
VALLEY GUTTER



END APRON



PLAIN RIDGE



ROLL TOP RIDGE

GUTTERS

1 	2 	3 	4 	5 	6 	7
8 	9 	10 	11 	12 	13 	14
15 	16 	17 	18 	19 	20 	

CAPPINGS

21 	22 	23 	24 	25
26 	27 	28 	29 	30
31 	32 	33 	34 	35

FLASHINGS

36 	37 	38 	39 	40
41 	42 	43 	44 	45
46 	47 	48 	49 	50

OTHER

51 	52 	53 	54 	55
56 	57 	58 	59 	60

GENERAL INSTALLATION INFO

SAFETY

Always ensure all OH&S regulations have been considered and applied.

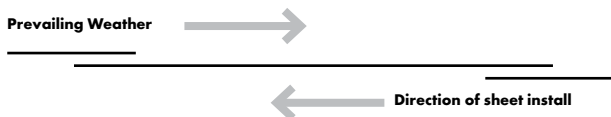
Before commencing installation:

1. Ensure support for sheeting is in the same plane.
2. Ensure sheet overhang does not exceed recommendations.
3. Check roof pitch is within minimum recommendation.
4. Ensure the first and last supports together with clips/ fasteners are at least 75mm from the end of the sheet for maximum hold.
5. Check set-out is correct as making changes further into installation is very difficult.

SHEET PLACEMENT PRIOR TO INSTALL

Determine prevailing wind and weather direction for maximum weather tightness. Identify downward direction and start install from that end.

Turn sheets on the ground rather than on the roof, this is easier and safer. Before lifting ensure sheets are the correct way up and the overlapping side is facing the edge of the roof where installation will commence. Position sheet bundles over firm supports, not at mid span of roof members.



SHEET LAYING

Sheets must be laid in such a manner that the side laps face away from the prevailing winds. A minimum of 50mm must be provided for projection into gutters. Flashings must be provided in compatible materials and their minimum cover must be 150mm.

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 of the roof or gutters.

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.

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.

WALKING ON SHEETING

When walking on roof sheeting always wear flat rubber soled shoes and only walk over areas where purlins or batten supports are installed.

STOP ENDS & LIPPING

For roof pitches below 15° turn the pans at the top of the sheets up 90° using a turn-up tool to prevent wind driven water entering beneath the flashing. Additionally, turn the pans at the bottom of the sheets down 15° using a turn-down tool to prevent water running along the underside of the sheet.

LENGTH

Metroll supplies roof sheeting and other products 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.

DELIVERY

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.

MAINTENANCE & CLEANING

Basic maintenance of steel cladding by regular washing with water is recommended. Applications where cladding is naturally washed by rainwater do not usually require this maintenance, e.g. roofing. Areas that are not naturally washed by rainfall, such as eaves, wall cladding and the underside of gutters, will benefit from regular washing. These areas and any others that are not regularly exposed to rainfall should be hosed down every six months. In coastal areas where marine salt is prevalent or areas where high levels of industrial fall-out occur, washing should be carried out more frequently.

If required wash the surface with a mild solution of pure soap or mild non abrasive kitchen detergent in warm water. Apply with a sponge, soft cloth or soft bristle nylon brush. Rinse thoroughly with clean water.

Never use abrasive or solvent based cleaners (turpentine, petrol, kerosene, paint thinner) on COLORBOND® and ZINCALUME® steels.

BLUESCOPE® STEEL WARRANTIES

Visit the BlueScope® Steel website for more information and to apply for a warranty.



QLD		NSW		VIC		TAS	
Cairns	07 4054 0888	Lismore	02 6622 6677	Preston	03 9480 3744	Launceston	03 6335 8555
Townsville	07 4779 8266	Tamworth	02 6765 4799	Laverton	03 8369 8300		
Mackay	07 4968 1255	Newcastle	02 4954 5799	Geelong	03 5248 2006	NT	
Rockhampton	07 4920 0900	Sydney	1300 766 346	Ballarat	03 5335 6416	Darwin	08 8935 9555
Bundaberg	07 4155 5999	Dubbo	02 6883 4800	Pakenham	03 8710 9300	WA	
Toowoomba	07 4634 6144	Wagga Wagga	02 5924 4500			Perth	08 9365 5444
Sunshine Coast	07 5493 7872	Canberra	02 6298 2777	SA		Bunbury	08 9796 9796
Brisbane	07 3375 0100			Adelaide	08 8282 3300	Albany	08 9841 6966

26 Metroll Branches Nationwide

Visit our website
metroll.com.au

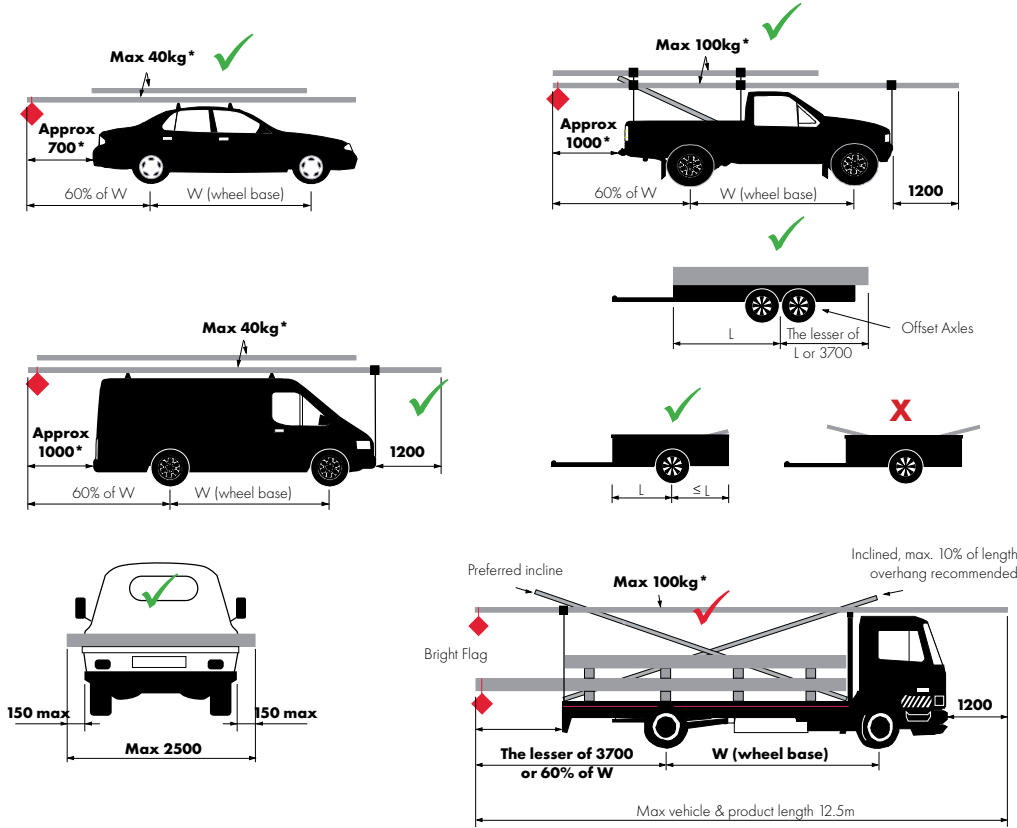


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COLORBOND®, ZINCALUME®, GALVASPAN® steels are all registered trademarks of BlueScope Steel Limited.

METROLL VEHICLE LOADING GUIDE

The drivers vision MUST NOT be obstructed

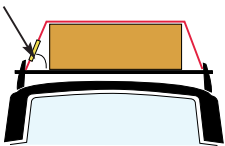


A 300mm square bright flag is required on any overhang that cannot be easily seen and is mandatory over 1200mm.

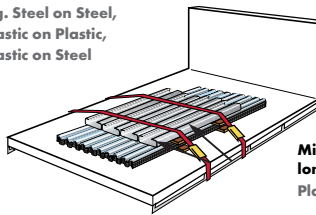


Secure your load

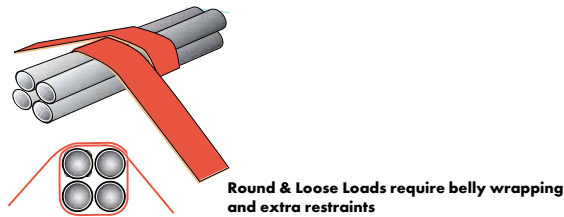
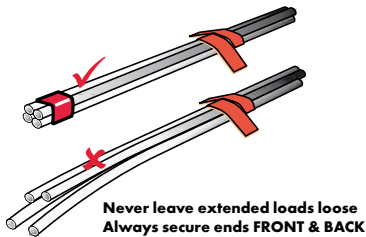
Roof Racks must be secure
Max of 40kg
Check the Lashing Angle, the more upright = the more secure



Avoid Low Friction surfaces
E.g. Steel on Steel,
Plastic on Plastic,
Plastic on Steel



Min. 2 Lashings per stack for items longer than 750mm
Place wood or rubber between items



Your safety is our concern.
Vehicles considered inappropriate will not be loaded.

This information is a guideline only.
Compliance with applicable laws and standards remains your responsibility.