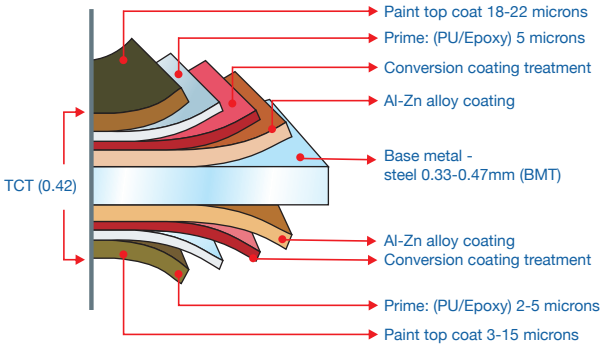
ROOFING & WALLING

DESCRIPTION OF THE GALUME

A premium pre-painted steel having Al-Zn alloy coated steel GALUME as substrate that finds extensive use in roofing and cladding applications. The paint is Coated on the pre-treated surface of Al-Zn alloy over layer of primer. The product withstands extreme environmental conditions, offers high durability, abrasion resistance and available with a wide range of colours adding aesthetic appeal.



Reference Standards : ASTMA 755
Substrate : ASTMA792

Substrate: Galume steel with AZ 150
(55% Al-Zn 43.5% alloy coating of 150g/m2)
Conformance to other standards like AS, JIS, EN or reques

Steel Base - Chemical Composition:

Maximum limit (%) - as per astma 792

Element	Gr 50	Gr 80	CS Types	
			A	B
Carbon (C)	0.25	0.20	0.10	0.02 0.15
Manganese (Mn)	1.35	1.35	0.60	0.60
Phosphorus (P)	0.20	0.04	0.03	0.03
Sulphur (S)	0.04	0.04	0.035	0.035

Mechanical Properties

Mechanical Properties	Guaranteed Minimum		CS Types	
	Gr 50	Gr 80	A	B
Yield Strength (Mpa)	340	550	245	
Tensile Strength (Mpa)	410*	570	330	
Elongation (%)	12	N.A.	20	

* For class I material
** Specific requirement available on request

Primer Coat:

Primer Type	PU / Epoxy	
Nominal Primer Coat Thickness (q)	Top coat	5
	Back coat	2 to 5

Finish Coat:

Primer Type	RMP / SMP / SDP / PVDF	
Nominal Primer Coat Thickness (q)	Top coat	18 to 22
	Back coat	3 to 6*

* Optional up to 15 micron max

Finish Coat:

Nominal thickness (BMT, mm)	0.20 - 1.10
Nominal width (mm)	610 - 1250
Unit coil wt (Max, MT)	10
Coil inner diameter (mm)	508

Tolerance limit:

Thickness: ± 0.02 mm/as per ASTM standard
width: 0.0, +5.0 mm

COLOR RANGE

RAL 1001
BEIGE

RAL 3013
AUTUMN RED

RAL 5002
LAZURITE BLUE

RAL 5012
SEA BLUE

RAL 5018
TORRES BLUE

RAL 6005
CAULFIED GREEN

RAL 6021
MIST GREEN

RAL 8014
WEATHERED COPPER

RAL 9010
OFF WHITE

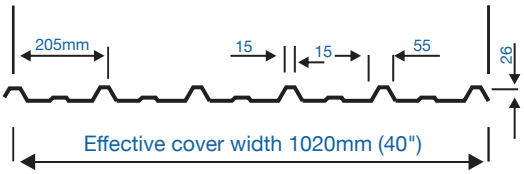
RAL 7040
TITANIUM SILVER

ROOFING PROFILES

RM 26

Versatile roof and wall cladding featuring bold, trapezoidal ribs and subtle fluting in the pans. Ideal for commercial, industrial and residential buildings.

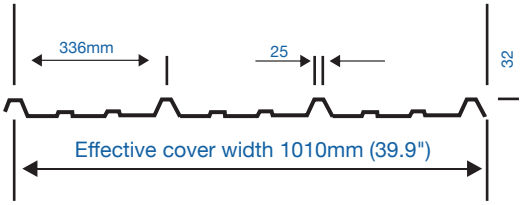
- Long spanning roofing and cladding permitting wide support spacing
- Nominal cover width: 1020mm



RM 32

A roofing and walling profile with a strong rib making a bold statement rising from flat pans with longitudinal fluting offering long, straight lines for a crisp and clean finish.

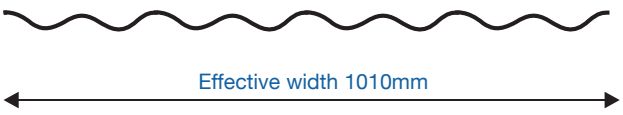
- Concealed fixed offering supreme water tightness
- Nominal cover width: 1010mm



RM SHELTA

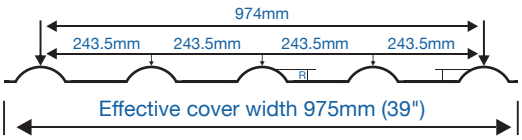
Roof sheeting and wall cladding ideal for modern and traditional architecture in residential and commercial applications.

- A lightweight yet strong roofing and walling material
- Versatile - Can be laid flat or sprung curved
- Nominal cover width: 1010 mm



RM 30

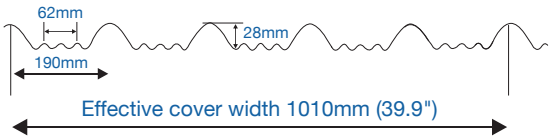
- Nominal cover width: 1010 mm
- A lightweight yet strong roofing material



RM 20

The TILE profile is a wide, durable, light-weight steel roofing profile, with a traditional and aesthetically pleasing appearance. It is ideal for commercial, institutional and residential applications.

- Nominal cover width: 1010 mm
- A lightweight yet strong roofing material

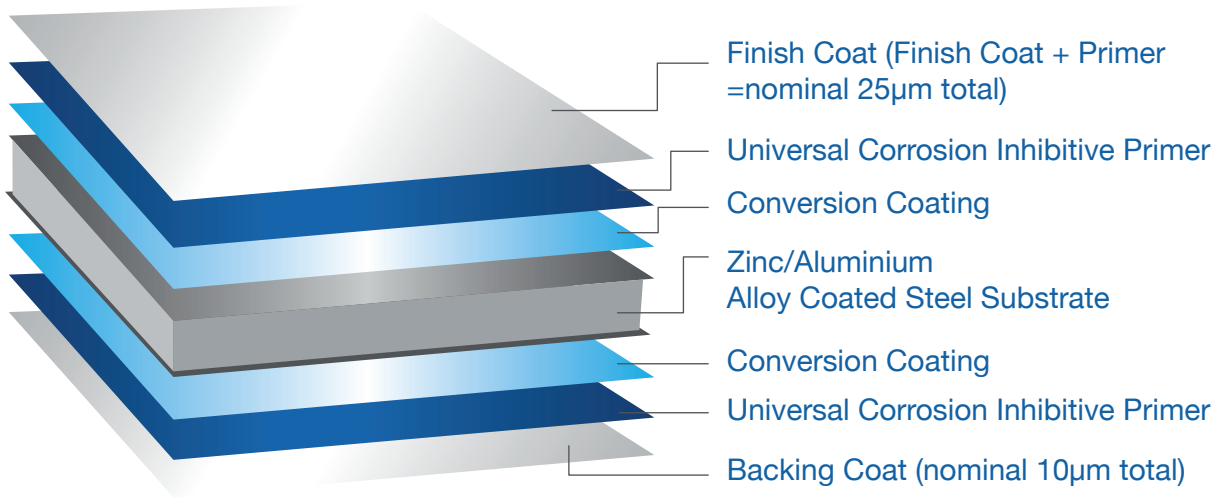


Specifications Of Roofing Profiles.

	BMT	Mass [1]	Cover Width	Rib Depth	Roof Pitch Minimum [2]	Maximum recommended spacing of supports [7]								
						ROOFS			Eaves Overhang [3]		WALLS			
						Single	End	Internal	Unstiffened	Stiffened	Single	End	Internal	Overhang
	mm	kg/m^2	mm	mm	Degrees	mm	mm	mm	mm	mm	mm	mm	mm	mm
RM 26	0.42	4.23	762	29	2 (1 in 30)	1100	1300	1900	150	300	2400	3000	3000	150
RM 32	0.42	4.61	700	41	2 (1 in 30)[6]	-	1800	2200	200	500	-	2150	3250	300
Shelta	0.42	4.23	762	16	5 (1 in 12)	700	900	1200	200	300	1800	2500	2700	200
Shelta	0.42	4.23	762	16	5 (1 in 12)	700	900	1200	200	300	1800	2500	2700	200
Shelta	0.42	4.23	762	16	5 (1 in 12)	700	900	1200	200	300	1800	2500	2700	200

ULTRA COLOR BOND

Cross-section of Ultra Color Bond steel



Why Ultra Color Bond Steel From ROOFMART

How confident are you being offered an equivalent product?

Ultra Color Bond steel combines the superior strength of zinc/aluminium alloy-coated steel with proprietary paint system technology exclusive from ROOFMART. ROOFMART products undergo continuous research and development, with stringent product testing in the harshest environments. Ultra Color Bond steel complies to Australian/New Zealand Standard AS/NZS 2728 and Malaysia Standard MS 2383. The product durability and performance is backed by a warranty.

ROOFMART's commitment to quality is assured as below.

- Roofing is a key consideration when designing a building to be thermally efficient, and is essential in mitigating the Urban Heat Island (UHI) effect.
- With the increase in global warming and government's focus on climate change, the need for great thermal efficiency especially in a tropical climate has become more essential.
- Green building rating tool such as leadership in Energy and Environment Design (LEED) and Malaysia's Green Building Index (GBI) require materials with high SRI values for mitigating the UHI effect. Ultra Color Bond steel is able to provide higher SRI values thus complying to the green building requirements.
- Ultra Color Bond steel has been one of the core building materials for more than 50 years in Australia. Today, Ultra Color Bond steel is leading the innovations again thus fulfilling the needs and requirements of the building industries.

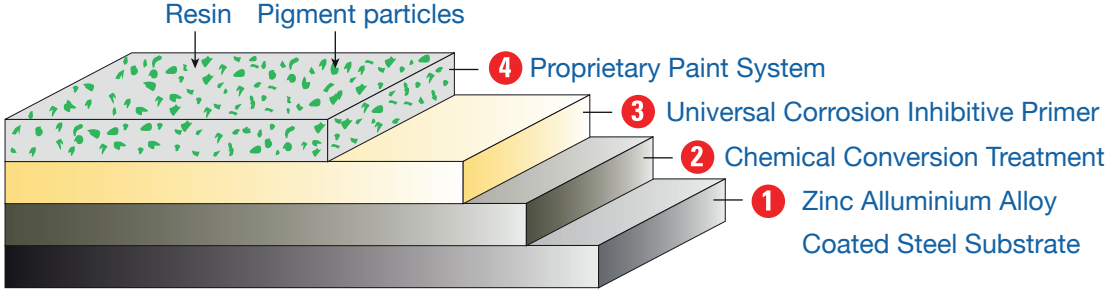
Benefits of Ultra Color Bond Steel

- Higher corrosion resistance with zinc alluminium alloy coated steel substrate.
- Advanced technology incorporated into the paint system to reflect the sun's heat, thus a cooler surface temperature.
- Wide colour range.
- Advanced primer technology to resist paint delamination.
- Clean technology to prevent tropical staining.
- Guaranteed material strength.
- Roofmart Warranty.
- Proven customer and in-field response and support.
- Nationwide availability and support.
- Certified and tested.

How does it work?

The paint system used in the manufacturing of Ultra Color Bond steel has a height degree of resin stability, color stability and UV resistance. The effectiveness of a paint system's performance is a function of the multiple layers of coating technology working together to create an effective overcall coating.

1. We start with a Zinc Alluminium Alloy steel base. Zinc Alluminium Alloy steel has a Zinc/aluminum alloy coating that delivers outstanding anti-corrosion performance.
2. We apply a conversion layer to the surface of the steel to improve adhesion.
3. We then bake a polyester primer onto the surface.
4. Finally, we apply the top coat a specially developed, exterior grade paint that is backed on to ensure maximum resistance to chipping, peeling and cracking.



How does it perform?

The samples pictured below were exposed to the same environmental conditions for the same period of time. The conventional pre-painted steel shows significant color fading, while the Ultra Color Bond steel shows very little color change, thus providing long lasting beauty.

Ultra Color Bond steel Conventional pre-painted steel

Key notes:

- Color fading is caused by deterioration of resing and pigment while paint delamination is caused by UV effects, poor manufacturing, poor formulation, or poor specification.
- ROOFMART's paint formulation provides superior durability against weathering and is resistant to paint delamination.
- Ultra Color Bond steel is made up of multiple coating layers that work in synergy to provide superior performance and durability.
- Solar reflectance technology is incorporated into Ultra Color Bond steel to reflect the sun's heat, thus lowering surface temperature.

Corrosion rates of galvanized steel and 55% Al-Zn alloy coated steel at Australian Atmosphere Exposure Test Sites

Site	Galvanized Steel		55% Al-Zn Alloy Coated Steel	
	g/m²/y	µm/y	g/m²/y	µm/y
Severe Marine	140	9.8	16	2.2
Marine	18	1.3	4.0	0.54
Industrial/Marine	20	1.4	4.2	0.57
Rural	4	0.28	1.3	0.17

g/m² - two sided µm - One sided

Key notes:

- Corrosion is the dissolution of metal due to the surrounding environment.
- Ultra Color Bond steel provides excellent corrosion resistance with zinc alluminium steel as the base substrate which comprises a coating composition of 43.5% Zinc, 55.0% aluminium and 1.5% silicon with a minimum coating mass of 150 g/m2.
- The zinc-rich area provides excellent sacrificial protection, while the aluminium-rich area provides durable barrier protection.

Material Specification

Ultra Color Bond AZ150 (designed for inland use)

0.47mm TCT or 0.53mm TCT in Ultra Color Bond steel (Color.TBD), metalic coating AZ 150 (minimum 150g/m^2 coating mass), Grade G550 (minimum yield stregth 550 MPa) or G300 (minimum yield stregth 300 MPa), super polyster paint system, 25µm on topside and 10µm on reverse side.

Fasteners to comply with Australian Standard AS3566.2 Class 3 or 4.
Flashing or ridge capping should be manufactured from the same material as used for the roofing.

Ultra Color Bond AZ200 (designed for coastal use - heavy corrosive and industrial area)

0.48mm TCT or 0.54mm TCT in Ultra Color Bond steel (Color.TBD), metalic coating AZ 200 (minimum 200g/m^2 coating mass), Grade G550 (minimum yield stregth 550 MPa) or G300 (minimum yield stregth 300 MPa), super polyster paint system, 25µm on topside and 10µm on reverse side.

Fasteners to comply with Australian Standard AS3566.2 Class 4.
Flashing or ridge capping should be manufactured from the same material as used for the roofing.

Ultra Color Bond AZ150 (designed for inland use)

0.47mm TCT or 0.53mm TCT in Ultra Color Bond MATT steel (Color.TBD) with a gloss finish of 7 ± 3 units, metalic coating AZ 150 (minimum 150g/m^2 coating mass), Grade G550 (minimum yield stregth 550 MPa) or G300 (minimum yield stregth 300 MPa), super polyster paint system, 25µm on topside and 10µm on reverse side.

Fasteners to comply with Australian Standard AS3566.2 Class 3 or 4.
Flashing or ridge capping should be manufactured from the same material as used for the roofing.

Ultra Color Bond AZ200 (designed for coastal use - heavy corrosive and industrial area)

0.48mm TCT or 0.54mm TCT in Ultra Color Bond ULTRA MATT steel (Color.TBD), with a gloss finish of 7 ± 3 units, metalic coating AZ 200 (minimum 200g/m^2 coating mass), Grade G550 (minimum yield stregth 550 MPa) or G300 (minimum yield stregth 300 MPa), super polyster paint system, 25µm on topside and 10µm on reverse side.

Fasteners to comply with Australian Standard AS3566.2 Class 4.
Flashing or ridge capping should be manufactured from the same material as used for the roofing.