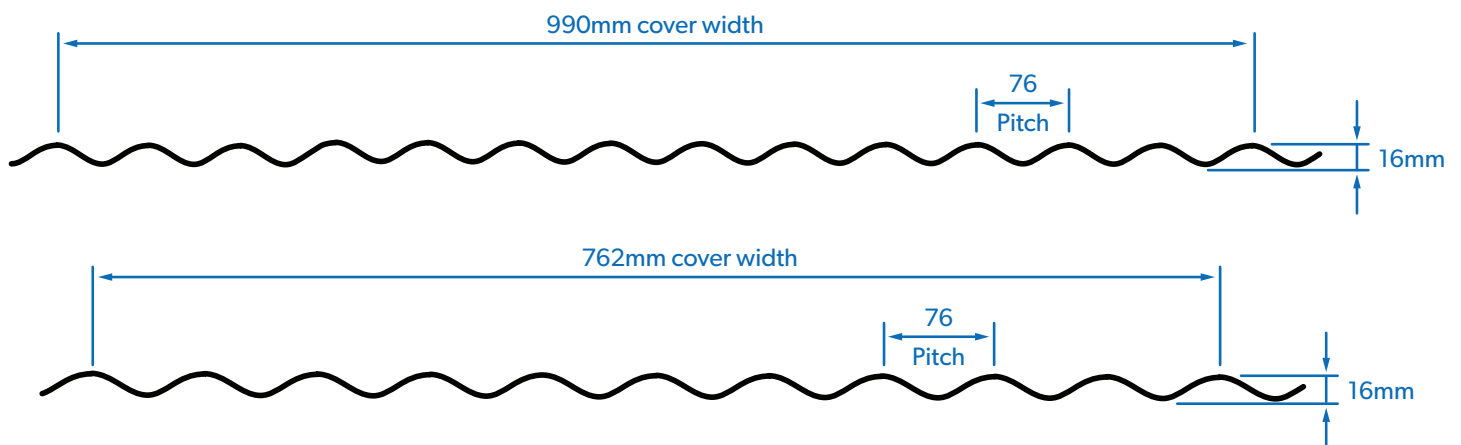


PERMALITE® aluminium WAVELINE® Data Sheet

WAVELINE® PROFILE DIMENSIONS



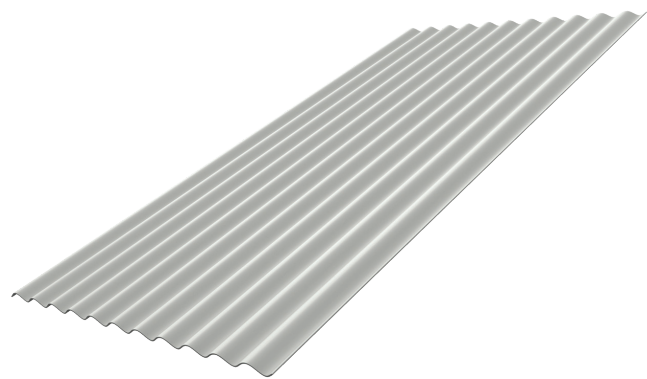
PRODUCT DESCRIPTION & FEATURES

The classic Australian profile is used in traditional as well as modern applications. Developed to cater for the residential market, the timeless simplicity of corrugated roof sheeting is married to classic gutter profiles to provide an elegant and stylish solution that is extremely durable in coastal environments.

WAVELINE® manufactured from PERMALITE® aluminium is available in 990mm cover width to provide minimum wastage and quick installation (762mm cover width also available for bullnosing & curving).

Other features include:

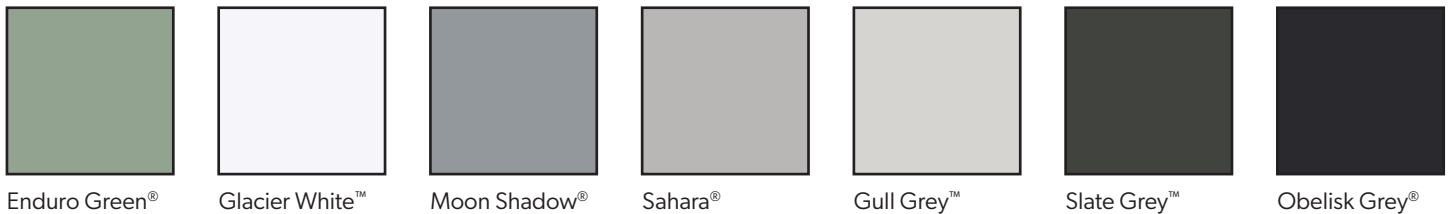
- Can be used for both roofing and walling applications
- Available in a wide variety of colours
- May be used in roof pitches to min 5 degrees (1 in 11)
- Spring curve to a radius as low as 12m
- Roll curve to a radius as low as 0.6m (762mm cover only)



Thickness Range (BMT):	0.70mm & 0.90mm
Length Range:	0.85m to 11.3m
Pan Cross Section area:	37,500mm ² /metre sheet width
Tolerances:	Length +0mm, -15mm Width ±4mm
Finishes:	Mill, Stucco Embossed, Painted

Colour Availability

The following PERMALITE® aluminium standard polyester paint colours are applied to the coiled sheet by reverse roller coating and heat curing on BlueScope paint lines employing the latest painting technology.



Other colours/fluorocarbon paints are available upon request and subject to MOQ's.

DESIGN AND INSTALLATION

WAVELINE® manufactured from PERMALITE® limit state wind pressure capacities are based on data in accordance with AS 1562.1:1992 Design and installation of sheet roof and wall cladding: Metal, and AS 4040.1:1992 Methods of testing sheet roof and wall cladding – Resistance to concentrated loads. The wind loadings used in conjunction with these tables are to be determined in accordance with AS/NZS 1170.2:2002 Structural design actions – Wind actions.

These capacity tables and all installation data/details can be found in the Permalite® Aluminium Roofing Solutions manual. Quick selection spanning tables can found in the Permalite® Aluminium Residential Solutions manual. Both are available for download at www.permalite.lysaght.com

PROFILE PROPERTIES

Thickness (mm)	Cover Width (mm)	kg/m ² Cover width (Mill finish)	kg/m Length (Mill finish)	m ² /tonne (Mill finish)	Section Modulus about principal axis (x10 ³ mm ³)		2nd Moment of area about principal axis (x10 ³ mm ⁴)	
					Z _x	Z _y	I _x	I _y
0.70	762	2.340	1.783	427	2.546	93.03	22.55	39030
0.70	990	2.338	2.338	428	3.356	157.9	29.11	87070
0.90	762	3.009	3.009	332	3.274	119.6	28.99	50180
0.90	990	3.006	3.006	333	4.314	203	37.43	112000

MATERIAL SPECIFICATION

WAVELINE® manufactured from PERMALITE® is produced from marine grade aluminium 5251 and 5052 H38 temper to AS/NZS 1734:1997 Aluminium and aluminium alloys – Flat sheet, coiled sheet and plate.

CHEMICAL COMPOSITION OF 5251 AND 5052

(% max except where range is given)

Alloy	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Others	
									Each	Total
5251	0.40	0.50	0.15	0.10-0.50	1.70-2.40	0.15	0.15	0.15	0.05	0.15
5052	0.25	0.40	0.10	0.10	2.20-2.80	0.15-0.35	0.10	0.15	0.05	0.15

CHARACTERISTICS OF 5251 AND 5052

Corrosion Resistance:	Excellent
Anodising:	Fair (finish cannot be guaranteed to meet the requirements of AS 1231:2000 Aluminium and Aluminium Alloys – Anodised Coatings for Architectural Applications)
Formability:	Very Good
Machinability:	Fair
Weldability:	Very Good
Brazeability:	Poor

ALLOY MECHANICAL PROPERTIES

The following properties are typical of mill finish, unpainted sheet.

Alloy	5251	5052
Temper	H38	H38
Minimum Yield Strength (Mpa)	225	220
Ultimate Tensile Strength (MPa)	260	270
Elongation (0.70 BMT)	3%	3%
Elongation (0.90 BMT)	4%	4%
Elongation (1.20 BMT)	4%	4%

THERMAL PROPERTIES

Coefficient of thermal expansion: 23.9×10^{-6} per °C
(approximately 1.17mm/m over 50°C temperature change).