

MATRIX
STEEL

MATSpan™



ROOF & WALL CLADDING

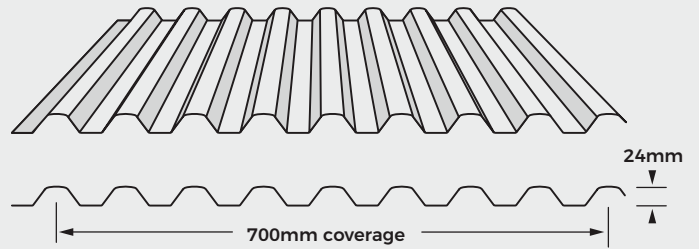


matrixsteel.au

Make it a
MATRIX.

OVERVIEW

Minimum Roof Pitch	3 Degrees
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MATSpan™ has a square corrugated profile with an attractive contemporary look.

MATSpan™ is ideal for commercial applications where a stronger and longer span is required.

MATSpan™ is equally popular in domestic roof and walls.

MATERIAL SPECIFICATION

0.42 or 0.48 Zinalume® G550 AM125
0.42 or 0.48 Colorbond® G550 AM100

SPECIAL ORDERS

Stainless Steel, Metallic, Coolmax® and Ultra

PRODUCT MASS

BMT		kg/m ²
0.42	Zinalume®	4.61
0.42	Colorbond®	4.64
0.48	Zinalume®	5.23
0.48	Colorbond®	5.27

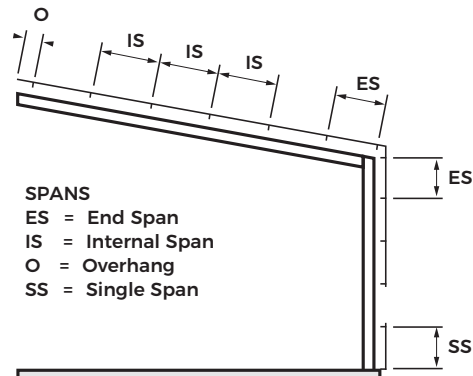
WIND LOAD CONVERSION

WIND CLASSIFICATION (DOMESTIC)	REGION & CATEGORY (COMMERCIAL & INDUSTRIAL)
N1 (W28)	Reg A, Cat 3
N2 (W33)	Reg A, Cat 2.5 - Reg B, Cat 3
N3 (W41)	Reg A, Cat 2 - Reg B, Cat 2.5
N4 (W50)	Reg B, Cat 2

MAXIMUM SUPPORT SPACINGS (MM)

Type of Span	Thickness (mm)	BMT
	.42	.48
ROOFS		
Single Span	1300	2000
End Span	1800	2100
Internal Span	2400	2700
Unstiffened Eaves Overhang	200	300
WALLS		
Single Span	2400	2700
End Span	2700	2700
Internal Span	3000	3000
Overhang	200	200

Maximum Support Spacing has been determined by load tests and deflection in accordance with AS 1562-1 AS 4040 1 & 2 1992.



.42 BMT MATSPAN™ ROOF & WALL

Limit State Wind Pressure Capacities (kpa)

4 Screws per Purlin		Walls Only								
SPAN TYPE	LIMIT STATE	Span mm								
		900	1200	1300	1500	1800	2100	2400	2700	3000
SINGLE	Serviceability	3.90	3.10	2.70	1.85	1.25	1.10	0.75		
	Strength	8.00	7.00	7.75	5.15	3.75	3.25	2.30		
END	Serviceability	3.60	3.20	2.80	2.50	2.15	1.80	1.60	1.20	0.80
	Strength	6.00	5.55	5.10	4.65	3.70	3.80	3.04	2.70	2.10
INTERNAL	Serviceability	4.20	3.80	3.35	2.90	2.35	2.20	1.70	1.50	1.20
	Strength	8.00	7.00	6.10	5.35	4.40	4.10	2.90	3.25	3.00

.48 BMT MATSPAN™ ROOF & WALL

Limit State Wind Pressure Capacities (kpa)

4 Screw intermediate 4 Screw Gutter & Apex Line		Walls Only								
SPAN TYPE	LIMIT STATE	Span mm								
		900	1200	1500	1800	2000	2100	2400	2700	3000
SINGLE	Serviceability	5.00	3.05	1.80	1.63	1.15	0.75	0.60		
	Strength	10.00	8.55	7.00	6.50	5.75	3.95	2.60	1.55	1.10
END	Serviceability	5.10	3.85	3.50	2.55	2.35	2.15	1.20	0.95	0.85
	Strength	8.60	6.70	5.80	4.80	3.95	3.75	3.00	2.70	2.65
INTERNAL	Serviceability	5.96	4.85	3.85	3.55	2.90	2.40	1.95	1.72	1.62
	Strength	9.00	8.00	7.00	6.65	5.65	5.25	4.40	4.00	3.80

Fixing to steel 1.0 minimum thickness.



Load Test



Pressure Test

COMPLIANCE

Wind pressure capacity tables have been determined by full scale testing in accordance with AS 1562.1 & AS 4040.1 & 2 1992.

Non-Cyclonic areas.

The pressure considered is based on buildings up to 10m high in Region B, Terrain Category 3, M3 = 0.85, MI =1.0, M=1.0 with the following assumptions made:

Roofs

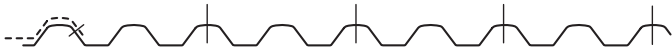
C_{pi} = +0.20, C_{pe} = -0.90, K_I = 2.0 for single and end spans, K_I = 1.5 for internal spans.

Walls

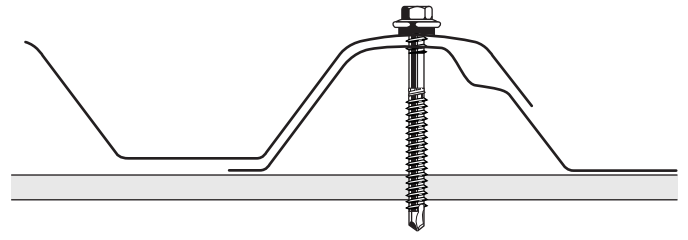
C_{pi} = +0.20, C_{pe} = -0.65, K_I = 2.0 for single spans, K_I = 1.5 for internal spans.

FIXING DETAILS

Crest: 4 Fasteners



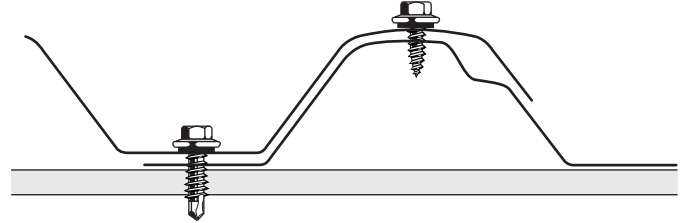
Crest Fix - Roof and Walls



Valley: 4 Fasteners - Walls only



Valley Fix - Walls only



MATSPAN™ ROOFING

Should be laid square to the gutter line and into the prevailing wind. The sheet is fastened every second rib. Sheets must be turned up at the apex and down at the gutter line. Side lap fastener is recommended mid span when span exceeds 1200mm.

MATSPAN™ WALLING

MATSpan™ is suitable for walls and has good spanning capabilities. Side lap fastener is recommended when the span exceeds 1200mm.

DESIGN CONSIDERATIONS

The recommended minimum pitch is 3 degrees. For long run roofing the pitch should be increased and spans considered.

Length

- MATSpan™ is custom cut to your exact length.
- The maximum length for pierce fixed roofing is 23.7m before an expansion joint is required. This length is recommended for light colours only. Dark colours should not exceed 16.0m because of increased thermal expansion.

Foot Traffic

- Always walk over purlins and place your foot print over as many ribs as possible to avoid damage.

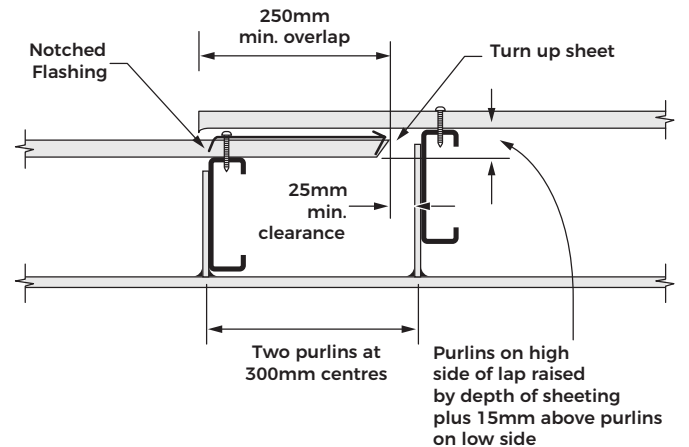
Handling On Site

- Delivery to site arrangements to be the responsibility of the customer.
- Sheets should be kept dry and clear of the ground.
- When handling sheets use dry, clean gloves and don't drag sheets over each other.

Cutting

- It is recommended to cut sheets with tin snips or a nibbler. Don't use an abrasive disc cutter.

EXPANSION JOINT



FASTENERS

	Fixing to Steel	Fixing to Timber
Crest Fixing Roof	12 - 14 Tekes	12 Type 17
Neo Washer	or M6 x 50 Tekes .55 - 1.0mm Thick Steel	M6 Tekes
Walls	10 - 16 x 16 Tekes	12 x 25 Type 17
Neo Washer		



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MATRIX STEEL

Ph. 1300 GO MATRIX (1300 466 287)
matrixsteel.au

GLADSTONE

94 Hanson Road,
Gladstone

BUNDABERG

73 Princess Street,
Bundaberg

GYMPIE

3/23 Pinewood Ave,
Gympie

HERVEY BAY

1/83 Beach Road,
Hervey Bay

SUNSHINE COAST

17 Fishermans Road,
Maroochydore

BRISBANE

1 Robart Court,
Narangba

LISMORE

9-11 Habib Drive,
South Lismore

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