APMAX 680

Apmax is a modern roofing & walling profile rollformed from Australian made BlueScope Hi-Tensile steel.
The high ribs and deep pans make it exceptionally strong with greater spanning capacity than other normal screw fixed roof profiles. Apmax is a proven performer for larger span patio roof systems and ideal for most industrial and commercial applications.

STEEL ROOF & WALL CLADDING

Apmax can be used on lower roof pitches down to a minimum of 1 degrees (approx. 1 in 60). The huge 48mm ribs provide excellent water carrying capacity while conventional pierce fixing allows for fast & efficient installation. Having been subjected to the latest LHL wind load testing, Apmax may also be used in most Cyclonic areas (refer Apex Sales Office for Cyclonic design & installation information).

Crest Fixing to Steel purlins: Tek 12-14x80mm	Pan Fixing: Tek 10-16x16mm
Crest Fixing to Timber: Type 17 14-10x90mm	Pan Fixing: Type 17 10-12x25mm (or Roofzip M6-11x25)

Apmax is available in the full range of Colorbond prepainted steel colours and unpainted next generation Zincalume. Colorbond ULTRA is available for harsh environments and Colorbond Metallic finishes may be specified for architectural applications.

The high strength Zincalume steel has a minimum yield stress of a G550 (550Mpa minimum yield stress) with an AM125 coating complying with AS1397.
All Colorbond prepainted steel complies with AS/NZS2728:1997.

All fasteners complying with AS3566 Class 3 may be used. 4 fasteners sheet per support to be used.
Although wall cladding may be pan fixed all roof cladding must be crest fixed with sealing washers to maximise watertightness.

Apmax is manufactured in long lengths to eliminate the need for end laps. It is best practice where practical to lay sheets with overlap edge facing away from the prevailing weather. Allow roof sheets to overlap into gutters by 50mm, turn down pans into gutter and turn up pans at the ridge end. Apex advises that site installation methods should comply with Australian Standards HB39.

Written site specific BlueScope material warranties are available for our Apmax profile.

APEX

For further information including span tables, water carrying capacity, steel data sheets and lead times please refer to our website www.apexsteel.com.au or contact you're closest Apex Sales Office.

APMAX 680

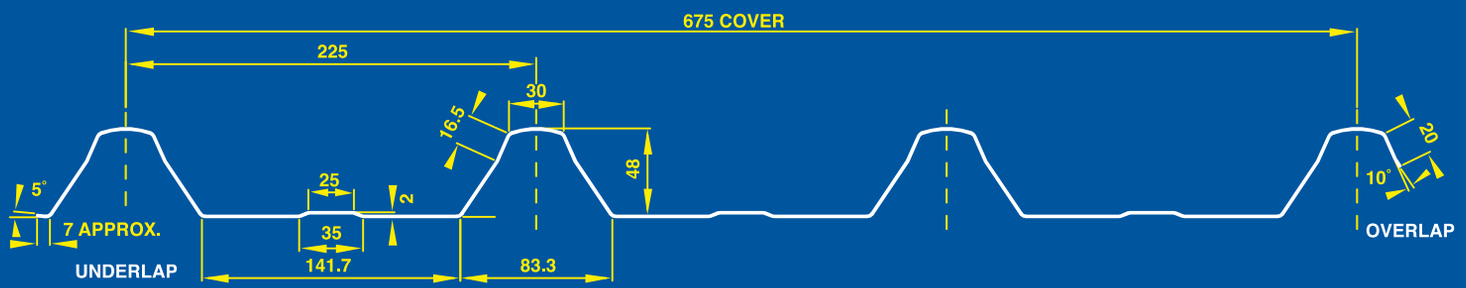
SPAN TABLES - NON-CYCLONIC AREAS

INTRODUCTION

The span tables below are prepared for wind pressure (for roof and wall) in non-cyclonic wind regions.

APMAX SPECIFICATIONS

Material - High tensile steel, G550 Base metal thickness (B.M.T.) - 0.42/0.48mm
Cover - 675mm (width) Profile height – 48mm
Finish - Available in ZINCALUME©/COLORBOND©



NON CYCLONIC WIND DESIGN CAPACITY

The tables below were prepared from tests carried out by the Cyclone Testing Centres (CTS) at James Cook University on APMAX sheets.
The tests were carried out for the following configuration:

a. All spans were triple equal spans.
b. Sheets were crest fastened to Z15015 G450 purlins using high quality # 14-10x95mm self-drilling metal screws and circular (approx. 25mm diameter x 1.2mm thick) aluminium bonded washers at every crest.
c. For spans greater than 1200mm, # 10-16 x 16mm side-lap screws were installed at maximum 1200mm centres.

Base metal thickness (BMT) (mm)	Span type	Span lengths (mm)	Design wind capacity (kPa) -(uplift only)
0.42	Triple span (equal spans)	1200	3.85
		1800	3.03
		2400	2.25
		3000	1.52
		3200	1.28
0.48	Triple span (equal spans)	1200	5.38
		1800	3.97
		2400	2.80
		3000	1.85
		3200	1.54

Table 1. APMAX – non-cyclonic design wind capacity for triple spans

Base metal thickness (BMT) (mm)	End span		Internal span	
	Span length (mm)	Pressure (kPa)	Span length (mm)	Pressure (kPa)
0.42	960	3.39	1200	4.22
	1440	3.09	1800	3.32
	1920	2.52	2400	2.47
	2400	1.98	3000	1.67
	2560	1.82	3200	1.40
0.48	960	4.73	1200	5.91
	1440	4.22	1800	4.36
	1920	3.24	2400	3.07
	2400	2.46	3000	2.04
	2560	2.25	3200	1.69

Table 2. APMAX – non-cyclonic design wind capacity for end and internal spans (uplift)

SPANS FOR RESIDENTIAL STRUCTURES

BMT (mm)	APPLICATION	SPAN TYPE	AS4055 Wind Classification			
			N1	N2	N3	N4
0.42	Roof	Edge	3075	2625	1775	-
		General	3200	3200	3125	2600
		Corner	2550	1925	-	-
0.48	Roof	Edge	3200	2925	2225	1525
		General	3200	3200	3200	2900
		Corner	2875	2350	1575	-

Table 3. APMAX roof spans for residential structures

This table is only valid for residential structures with the following geometric limitations:

a. Distance from ground level to the underside of eaves does not exceed 6.0m.
b. Distance from ground level to the highest point of the roof (excluding chimneys) does not exceed 8.5m.
c. Width including roofed verandas (excluding eaves) does not exceed 16.0 m, and the length does not exceed five times the width.
d. Roof pitch does not exceed 35°.

THERMAL EXPANSION

Metal cladding is subject to expansion and contraction due to temperature changes which on a roof can be severe. The maximum recommended sheet lengths for screw fixed cladding is 25m for Zincalume/light colours and 18m for dark colours. For roof lengths in excess of this an expansion joint should be used to mitigate the effect of thermal expansion.

DISCLAIMER

This document is an aid for building professionals and designers and is only valid for APMAX 680 roof and wall cladding sheets manufactured and distributed by APEX Building Products Pty Ltd. This document is not a substitute for professional advice - please seek professional advice regarding the use of this product.

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