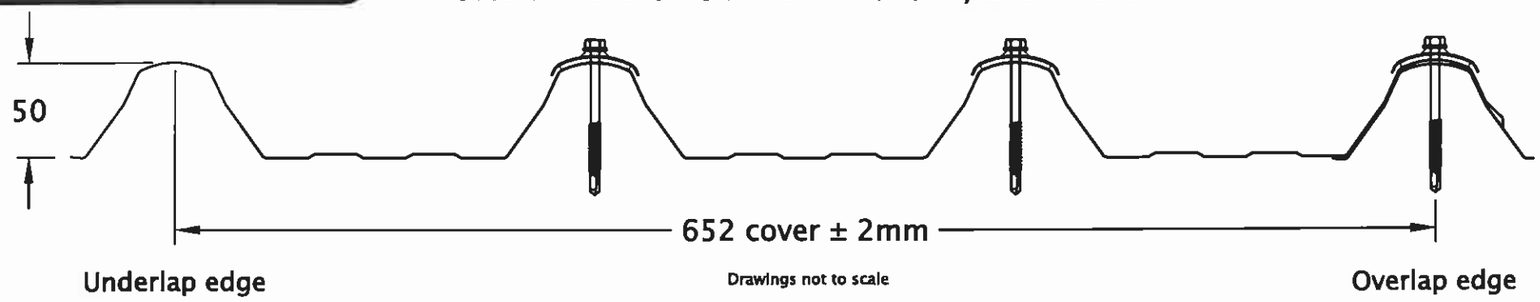
PRODEK® ROOF CLADDING PERFORMANCE IN CYCLONIC REGION C

0.42mm and 0.48mm BMT AS1397/G550 AZ150



Maximum Allowable Spans (mm) for Region C

Terrain Category	KI	5m Building Height							10m Building Height						
		Pz	0.42mm BMT			0.48mm BMT			Pz	0.42mm BMT			0.48mm BMT		
		(kPa)	Single	End	Internal	Single	End	Internal	(kPa)	Single	End	Internal	Single	End	Internal
1 & 2	1	4.16	1460	1460	1550	1620	1620	1720	4.61	1370	1370	1450	1510	1510	1610
	1.5	5.33	1220	1220	1310	1350	1350	1450	5.91	1110	1110	1210	1240	1240	1340
	2	6.50	1010	1010	1110	1120	1120	1230	7.20	910	910	990	1000	1000	1110
2.5	1	3.53	1620	1620	1700	1790	1790	1890	4.12	1470	1470	1560	1640	1640	1730
	1.5	4.52	1380	1380	1470	1540	1540	1630	5.28	1230	1230	1320	1370	1370	1470
	2	5.52	1180	1180	1280	1320	1320	1420	6.43	1020	1020	1120	1140	1140	1240
3 & 4	1	2.95	1780	1780	1860	1980	1980	2070	3.65	1590	1590	1670	1760	1760	1850
	1.5	3.78	1550	1550	1640	1720	1720	1820	4.68	1350	1350	1440	1500	1500	1590
	2	4.61	1370	1370	1450	1510	1510	1610	5.71	1150	1150	1240	1280	1280	1380

Design Pressures Pz - Ult. Limit State (kPa)

Span (mm)	0.42mm BMT			0.48mm BMT		
	Single	End	Internal	Single	End	Internal
1000	6.58	6.58	7.20	7.22	7.22	7.90
1300	4.95	4.95	5.41	5.62	5.62	6.14
1600	3.62	3.62	3.95	4.28	4.28	4.68
1900	2.58	2.58	2.82	3.20	3.20	3.50
2200	1.84	1.84	2.01	2.39	2.39	2.61
2500	1.40	1.40	1.53	1.84	1.84	2.01
2700	1.27	1.27	1.39	1.62	1.62	1.77

Fastener Details in Region C

Steel	1.5 - 4.0mm	Minimum 13 gauge x 75mm hex head screw with cyclonic washer assembly
Timber	Hardwood (F11)	Minimum 13 gauge hex head screw embedded at least 35mm into timber
	Softwood (F5)	Minimum 13 gauge hex head screw embedded at least 35mm into timber

Carport / Verandah Spans in Region C

Terrain Category	Base Metal Thickness	
	0.42mm BMT	0.48mm BMT
1 & 2	1620	1800
2.5	1770	1970
3 & 4	1930	2150

Fixing Recommendations:

Prodek sheets should be laid into the prevailing wind and sit neatly on the preceding roof sheet. They should be fixed within the recommended support spacings. Avoid 'stretching' the width of the sheet when installing, as this could allow wind and rain to enter. Flashings turn downs into the pan of Prodek should always be notched around the rib for maximum weather tightness. For spans between 1200mm and 3600mm, side lap fasteners are recommended for use at mid-span. For spans beyond 3600mm use two evenly spaced fasteners between supports to secure the side lap. Use either 8 x 12mm self drilling stitching screws or a 4.8mm blind rivet (rivets should be sealed to prevent water penetration). On roofing, at the end of the sheets, turn the pans up at the roof ridge and down into the gutter using a turn up/down tool.

Walking on Prodek

When walking on Prodek roofing, it is recommended you walk over the purlins to avoid any damage. Wear flat, rubber soled shoes and walk flat footed in the sheet pans only. For carport and verandah applications, crawl boards should be used to avoid damage during installation and maintenance.

Maintenance Requirements:

The performance of Prodek over time depends on its correct application and maintenance. Maintenance should be performed as often as is required to remove any dirt, salt and pollutants. Where Prodek is used in severly corrosive environments, cleaning should be performed more often. It is important that screws have the same life expectancy as the Prodek cladding you have specified. Packs of Prodek should always be kept dry and stored above ground level on site. If the sheets have become wet, they should be seperated, wiped and placed in the open to dry. Refer to the Stratco "Selection, Use and Maintenance" Brochure, for more detailed information about the correct use and maintenance of this product.

JULY 2009

Design Criteria

The following criteria was used in the development of the tables:

1. Region C with a design return period of 500 yrs.
2. Vr = Fd 66m/s (limit state), with Fd = 1.05
3. Ms/Mt/Md = 1.00

Height (m)	Terrain/height Multiplier (Mz,cat)		
	1&2	2.5	3&4
<=5	0.95	0.88	0.80
<=10	1.0	0.95	0.89

Pressure coefficients:
Internal Cpi = +0.7
External Cpi = -0.9

Carport and Verandah Spans

The carport and verandah spans only apply to structures not enclosed by peripheral walls. Spans are based on height <=5m, Cpn =-0.9 and KI = 1.5 applied over the entire span, and are suitable for all span types. Loads on supporting purlins may limit these spans.

Stratco can provide additional engineering advice if any design parameters vary from those above.

Limitations

1. Design pressures and maximum allowable spans are based on five fasteners per sheet per support.
2. When fixing over insulation, screw length should be increased to ensure sufficient penetration of the fastener.
3. Maximum allowable overhang is 200mm for roof cladding.

Notes

1. Cyclonic Testing in accordance with Building Code of Australia (BCA) - Low-High-Low Pressure Testing.
2. Design Criteria are determined in accordance with AS/NZS1170.2 2002 Wind Actions.

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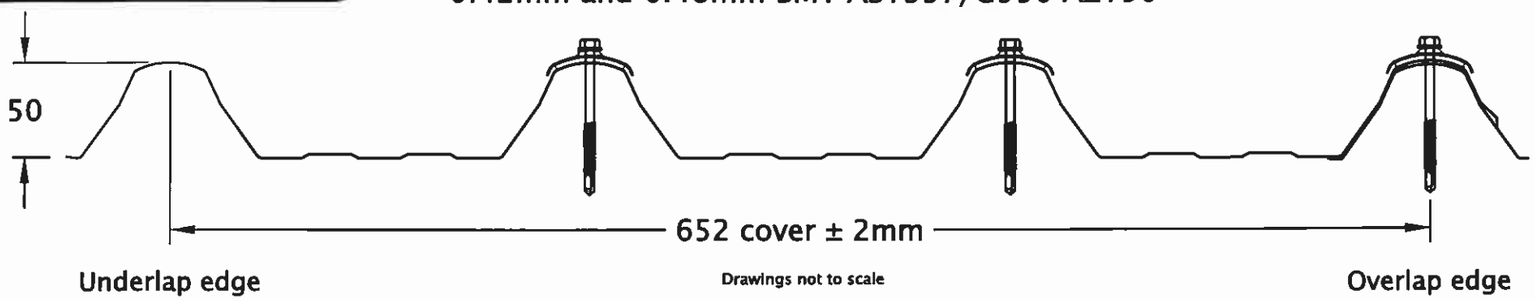
PRODEK® ROOF CLADDING PERFORMANCE IN CYCLONIC REGION D

0.42mm and 0.48mm BMT AS1397/G550 AZ150



Maximum Allowable Spans (mm) for Region D

Terrain Category	KI	5m Building Height							10m Building Height						
		Pz	0.42mm BMT			0.48mm BMT			Pz	0.42mm BMT			0.48mm BMT		
		(kPa)	Single	End	Internal	Single	End	Internal	(kPa)	Single	End	Internal	Single	End	Internal
1 & 2	1	6.71	980	980	1070	1090	1090	1190	7.43	880	880	960	970	970	1070
	1.5	8.60	760	760	830	830	830	910	9.53	690	690	750	750	750	820
	2	10.48	620	620	680	680	680	750	11.62	560	560	610	620	620	670
2.5	1	5.69	1150	1150	1240	1280	1280	1380	6.64	990	990	1080	1100	1100	1200
	1.5	7.29	900	900	980	990	990	1090	8.51	770	770	840	840	840	920
	2	8.89	730	730	800	810	810	880	10.37	630	630	690	690	690	760
3 & 4	1	4.76	1330	1330	1420	1480	1480	1580	5.89	1120	1120	1210	1240	1240	1340
	1.5	6.10	1080	1080	1170	1200	1200	1300	7.54	870	870	950	950	950	1050
	2	7.43	880	880	960	970	970	1070	9.20	710	710	780	780	780	850

Design Pressures Pz - Ult. Limit State (kPa)

Span (mm)	0.42mm BMT			0.48mm BMT		
	Single	End	Internal	Single	End	Internal
1000	6.58	6.58	7.20	7.22	7.22	7.90
1300	4.95	4.95	5.41	5.62	5.62	6.14
1600	3.62	3.62	3.95	4.28	4.28	4.68
1900	2.58	2.58	2.82	3.20	3.20	3.50
2200	1.84	1.84	2.01	2.39	2.39	2.61
2500	1.40	1.40	1.53	1.84	1.84	2.01
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Fastener Details in Region D

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Carport / Verandah Spans in Region D

Terrain Category	Base Metal Thickness	
	0.42mm BMT	0.48mm BMT
1 & 2	1160	1290
2.5	1300	1470
3 & 4	1500	1660

Fixing Recommendations:

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JULY 2009

Design Criteria

The following criteria was used in the development of the tables:

1. Region D with a design return period of 500 yrs.
2. Vr = Fd 80m/s (limit state), with Fd = 1.1
3. Ms/Mt/Md = 1.00

Height (m)	Terrain/height Multiplier (Mz,cat)		
	1&2	2.5	3&4
<=5	0.95	0.88	0.80
<=10	1.0	0.95	0.89

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