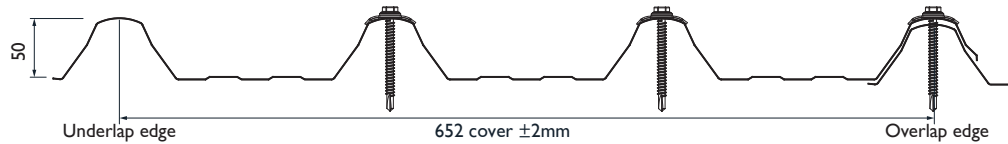




PRODEK® ROOF CLADDING Region C



Fixing screws to comply to AS3566. I-2002 Self-drilling screws for the building and construction industries - General requirements and mechanical properties.

Product Name

Prodek® Roof Cladding

Product Description

Stratco Prodek® Roof Cladding is manufactured from 0.42 or 0.48 BMT G550 steel. Cladding available in colour or zinc/al finish, minimum AM100 coating.

Manufacturer's Name

Stratco (Australia) Pty Ltd
780 Stuart Highway, Berrimah NT 0828. ABN 30 007 528 850

Design Criteria

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

- Region C with an annual probability of exceedance of 500 years (strength), 25 years (serviceability).
- $V_R = F_c \cdot 66 \text{ m/s}$, with $F_c = 1.05$ (strength); $V_R = F_c \cdot 47 \text{ m/s}$, with $F_c = 1$ (serviceability)
- $M_s/M_t/M_d = 1.00$
- $K_{c,e} = K_{c,i} = 0.9$
- Importance Level 2

Height (m)	Terrain/Height Multiplier (Mz,cat)				
	1.0	1.5	2.0	2.5	3.0
≤3	0.99	0.95	0.91	0.87	0.83
≤5	1.05	0.98	0.91	0.87	0.83
≤10	1.12	1.06	1.00	0.92	0.83

Pressure Coefficients:

Internal $C_{p,i} = +0.7$ (strength), $+0.2$ (serviceability)

External $C_{p,e} = -0.9$

Design Criteria determined in accordance with AS/NZS 1170.2:2011 Wind Actions.

Limitations

- Design pressures and maximum allowable spans are based on all crests being fastened to supports.
- The maximum allowable spans have considered serviceability requirements.
- When fixing over insulation, screw length should be increased to ensure sufficient penetration of the fastener.
- When fixing to supports (steel: minimum 1.5mm thickness), roofing spans may be limited by the allowable support spacing. Refer to relevant engineering specifications.
- Maximum allowable overhang is 200mm for roof cladding.
- For pressure coefficients which vary from those specified in the design criteria, refer AS/NZS 1170.2:2011 Wind Actions for evaluation of pressure, P_z . Examples include elevated buildings and h/d ratios which exceed 0.5.
- Refer AS/NZS 1170.2:2011 Structural Design Actions Part 2: Wind Actions for definition of local pressure zones.
- Prodek® roofing requires minimum 1" roof pitch.
- Walk flat footed in pans and over supports where possible keeping your weight evenly distributed over the soles of your shoes.

Accepted for Inclusion

DTCM ref: M/743

Chairman's Signature:

Chairman's Name: Paul Nowland

Date of Approval: 13/04/2021 Expiry Date: 13/04/2026

Fastener Details		
Steel	Minimum 1.5mm (BMT)	Buildex class 4 minimum 14g x 70mm self drilling screw with cyclonic washer assembly.
Timber	Hardwood F11/DJ2 or stronger	Buildex class 4 minimum 14g x 90mm timber fix screw with cyclonic washer assembly, embedded at least 35mm into timber.
	Softwood F7/DJ4 or stronger	Buildex class 4 minimum 14g x 90mm timber fix screw with cyclonic washer assembly, embedded at least 35mm into timber.

Note: For spans > 900mm side lap fixing midspan using an 8x15mm self drilling stitch screw with seal or 3.2mm sealed blind rivet is recommended (maximum 900mm centres). This provides a weather proof seal and secures the overlap.

Maximum Allowable Spans (mm)																						
Terrain Category	KI	3m Maximum Average Roof Height						5m Maximum Average Roof Height						10m Maximum Average Roof Height								
		Pz (kPa)	0.42mm BMT			0.48mm BMT			Pz (kPa)	0.42mm BMT			0.48mm BMT			Pz (kPa)	0.42mm BMT			0.48mm BMT		
			Single	End	Internal	Single	End	Internal		Single	End	Internal	Single	End	Internal		Single	End	Internal	Single	End	Internal
1.0	1.0	4.07	1490	1490	1570	1650	1650	1740	4.57	1370	1370	1460	1520	1520	1620	5.20	1240	1240	1330	1380	1380	1480
	1.5	5.21	1240	1240	1330	1380	1380	1480	5.86	1120	1120	1210	1250	1250	1350	6.67	980	980	1080	1090	1090	1200
	2.0	6.35	1030	1030	1130	1150	1150	1260	7.15	890	890	1000	1010	1010	1120	8.13	740	740	810	830	830	910
	3.0	8.64	660	660	720	750	750	820	9.72	520	520	570	590	590	650	11.06	-	-	-	420	420	460
1.5	1.0	3.74	1560	1560	1640	1730	1730	1830	3.99	1500	1500	1590	1670	1670	1760	4.66	1350	1350	1440	1500	1500	1600
	1.5	4.80	1330	1330	1410	1470	1470	1570	5.11	1260	1260	1350	1400	1400	1500	5.97	1100	1100	1190	1220	1220	1330
	2.0	5.85	1120	1120	1220	1250	1250	1350	6.23	1060	1060	1150	1170	1170	1280	7.28	870	870	950	980	980	1090
	3.0	7.96	760	760	830	860	860	940	8.47	690	690	750	780	780	850	9.91	500	500	540	570	570	620
2.0	1.0	3.44	1640	1640	1720	1820	1820	1910	3.44	1640	1640	1720	1820	1820	1910	4.15	1470	1470	1550	1630	1630	1720
	1.5	4.40	1410	1410	1500	1560	1560	1660	4.40	1410	1410	1500	1560	1560	1660	5.32	1220	1220	1310	1360	1360	1460
	2.0	5.37	1210	1210	1300	1350	1350	1450	5.37	1210	1210	1300	1350	1350	1450	6.48	1010	1010	1110	1130	1130	1230
	3.0	7.30	870	870	950	980	980	1090	7.30	870	870	950	980	980	1090	8.82	640	640	700	720	720	790
2.5	1.0	3.14	1720	1720	1800	1910	1910	2000	3.14	1720	1720	1800	1910	1910	2000	3.51	1620	1620	1700	1800	1800	1890
	1.5	4.02	1500	1500	1580	1660	1660	1750	4.02	1500	1500	1580	1660	1660	1750	4.50	1390	1390	1470	1540	1540	1640
	2.0	4.91	1300	1300	1390	1450	1450	1540	4.91	1300	1300	1390	1450	1450	1540	5.49	1190	1190	1280	1320	1320	1420
	3.0	6.67	980	980	1080	1090	1090	1200	6.67	980	980	1080	1090	1090	1200	7.46	840	840	920	950	950	1060
3.0	1.0	2.86	1810	1810	1880	2010	2010	2100	2.86	1810	1810	1880	2010	2010	2100	2.86	1810	1810	1880	2010	2010	2100
	1.5	3.66	1580	1580	1660	1760	1760	1850	3.66	1580	1580	1660	1760	1760	1850	3.66	1580	1580	1660	1760	1760	1850
	2.0	4.47	1400	1400	1480	1550	1550	1640	4.47	1400	1400	1480	1550	1550	1640	4.47	1400	1400	1480	1550	1550	1640
	3.0	6.07	1080	1080	1180	1200	1200	1310	6.07	1080	1080	1180	1200	1200	1310	6.07	1080	1080	1180	1200	1200	1310

Note: For roofing applications a local pressure of KI = 3.0 is applicable adjacent roof corners on roofs with a pitch less than 10°.

Notes covering basis of DTC (Relevant test reports etc)

- Cyclonic Fatigue Testing in accordance with the NCC 2019 BCA Volume Two - Low-High-Low Pressure Testing.
- Cyclonic Testing of Prodek® Roof Sheeting, Report no. 72 revision A, 10/06/2014, Stratco Testing Facility, Gepps Cross, South Australia.

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