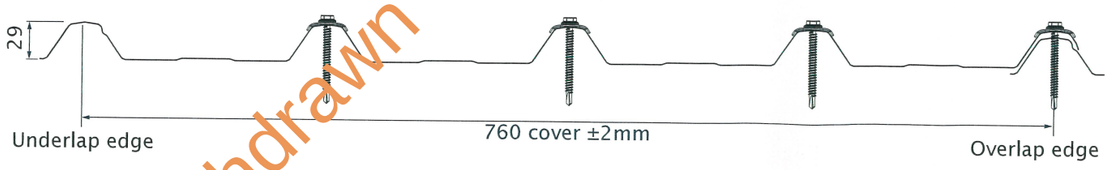
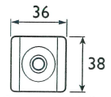
IN ACCORDANCE WITH NCC VOLUME 2 (SECTION P3.10.1), THIS PRODUCT SATISFIES PERFORMANCE REQUIREMENT P2.1.1 FOR CONSTRUCTION IN A HIGH WIND AREA.

SUPERDEK® ROOF CLADDING

Region C





1.0mm G300 Cyclonic Washer with Rubber Seal

Fixing screws to comply to AS3566.1:2002 Self-drilling screws for the building and construction industries - General requirements and mechanical properties.

Fastener Details

Steel	**Minimum 0.75mm (BMT)**	Class 4 minimum 14g x 55mm self drilling screw with cyclonic washer assembly.
Timber	**Hardwood F11/JD2 or stronger**	Class 4 minimum 14g x 70mm self drilling screw with cyclonic washer assembly, embedded at least 35mm into timber.
	Softwood F7/JD4 or stronger	Class 4 minimum 14g x 70mm self drilling screw with cyclonic washer assembly, embedded at least 35mm into timber.

Note: For spans > 2000mm side lap fixing midspan using an 8x15mm self drilling stitch screw with seal or 3.2mm sealed blind rivets are recommended (maximum 600mm centres). This provides a weather proof seal and secures the overlap.

Design Pressures - Strength Limit State Capacity (kPa)

Span (mm)	0.42mm BMT			0.48mm BMT		
	Single	End	Internal	Single	End	Internal
400	10.76	10.76	11.77	11.23	11.23	12.28
700	6.51	6.51	7.12	7.50	7.50	8.20
1000	4.29	4.29	4.69	4.90	4.90	5.36
1300	2.60	2.60	2.84	2.95	2.95	3.23
1600	1.44	1.44	1.58	1.64	1.64	1.80
1900	0.82	0.82	0.90	0.98	0.98	1.07
2100	0.70	0.70	0.77	0.90	0.90	0.98

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	1030	1030	1090	1110	1110	1160	4.57	950	950	1010	1040	1040	1090	5.20	860	860	930	960	960	1010
	1.5	5.21	860	860	920	960	960	1010	5.86	780	780	840	880	880	940	6.67	680	680	750	780	780	850
	2.0	6.35	710	710	780	820	820	880	7.15	640	640	700	730	730	800	8.13	560	560	620	630	630	700
	3.0	8.64	530	530	580	590	590	650	9.72	460	460	500	500	500	550	11.06	-	-	-	410	410	440
1.5	1.0	3.74	1080	1080	1140	1160	1160	1210	3.99	1040	1040	1100	1120	1120	1180	4.66	940	940	1000	1030	1030	1080
	1.5	4.80	920	920	980	1010	1010	1070	5.11	880	880	940	970	970	1030	5.97	760	760	830	860	860	920
	2.0	5.85	780	780	840	880	880	940	6.23	730	730	800	830	830	900	7.28	630	630	690	720	720	780
	3.0	7.96	580	580	630	650	650	720	8.47	540	540	590	600	600	660	9.91	440	440	490	490	490	530
2.0	1.0	3.44	1130	1130	1190	1210	1210	1260	3.44	1130	1130	1190	1210	1210	1260	4.15	1020	1020	1070	1100	1100	1150
	1.5	4.40	980	980	1040	1060	1060	1120	4.40	980	980	1040	1060	1060	1120	5.32	850	850	910	940	940	1000
	2.0	5.37	840	840	900	940	940	990	5.37	840	840	900	940	940	990	6.48	700	700	770	800	800	870
	3.0	7.30	630	630	690	720	720	780	7.30	630	630	690	720	720	780	8.82	510	510	560	570	570	630
2.5	1.0	3.14	1150	1190	1240	1260	1260	1310	3.14	1150	1190	1240	1260	1260	1310	3.47	1130	1130	1180	1200	1200	1250
	1.5	4.02	1040	1040	1090	1120	1120	1170	4.02	1040	1040	1090	1120	1120	1170	4.45	970	970	1030	1060	1060	1110
	2.0	4.91	900	900	960	990	990	1050	4.91	900	900	960	990	990	1050	5.43	830	830	900	930	930	990
	3.0	6.67	680	680	750	780	780	850	6.67	680	680	750	780	780	850	7.38	620	620	680	710	710	770
3.0	1.0	2.86	1150	1240	1290	1310	1310	1360	2.86	1150	1240	1290	1310	1310	1360	2.86	1150	1240	1290	1310	1310	1360
	1.5	3.66	1100	1100	1150	1170	1170	1220	3.66	1100	1100	1150	1170	1170	1220	3.66	1100	1100	1150	1170	1170	1220
	2.0	4.47	970	970	1030	1050	1050	1110	4.47	970	970	1030	1050	1050	1110	4.47	970	970	1030	1050	1050	1110
	3.0	6.07	750	750	820	850	850	910	6.07	750	750	820	850	850	910	6.07	750	750	820	850	850	910

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)

1. Cyclonic Fatigue Testing in accordance with the NCC 2015 BCA Volume Two - Low-High-Low Pressure Testing.
2. Cyclonic Testing of Superdek® Roof Sheeting, Report no. 70 revision A, 05/2014, Stratco Testing Facility, Gepps Cross, South Australia.

*Checking Engineers Certification

Name: Trevor John
Registration Number: 106278
Date: 19.08.2015
Signature: REF: 50067-4 TREVOR JOHN

*registered as a structural engineer in Australia

*Certifying Engineers Certification
Heiner Structural Engineering Consultants
Name: Wisnu Lim (nominee)
NT Registration Number: NT14565IES
Date: 19.08.2015
Signature:

*registered as a structural engineer in Northern Territory

Product Name

Superdek® Roof Cladding

Product Description

Stratco Superdek® Roof Cladding is manufactured from 0.42 or 0.48 BMT G550 steel. Cladding available in colour or zinc/al finish, minimum AZ150 coating.

Manufacturer's Name

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

Design Criteria

The following criteria was used in the development of the tables:
Region C with an annual probability of exceedance of 500 years (strength), 25 years (serviceability).

1. $V_R = F_C 66 m/s$, with $F_C = 1.05$ (strength); $V_R = F_C 47 m/s$, with $F_C = 1$ (serviceability)
2. $M_s/M_t/M_d = 1.00$
3. $K_{c,e} = K_{c,i} = 0.9$
4. 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/NZS1170.2:2011 *Wind Actions*.

Limitations

1. Design pressures and maximum allowable spans are based on four crest fasteners per sheet per support.
2. The maximum allowable spans have considered serviceability requirements.
3. When fixing over insulation, screw length should be increased to ensure sufficient penetration of the fastener.
4. When fixing to roof battens, roofing spans may be limited by the allowable batten spacing. Refer to the relevant roof batten DTC sheet.
5. Maximum allowable overhang is 200mm for roof cladding.
6. For pressure coefficients which vary from those specified in the design criteria, refer AS/NZS 1170.2:2011 Wind Actions for evaluation of pressure, Pz. Examples include elevated buildings and h/d ratios which exceed 0.5.
7. Refer AS/NZS 1170.2:2011 Structural Design Actions Part 2: Wind Actions for definition of local pressure zones.

Accepted for Inclusion

DTCM ref: M/282/01

Chairman's Signature: P.Russell

Chairman's Name: P.Russell

Date of Approval: 27.8.15 Expiry Date: 27.8.20