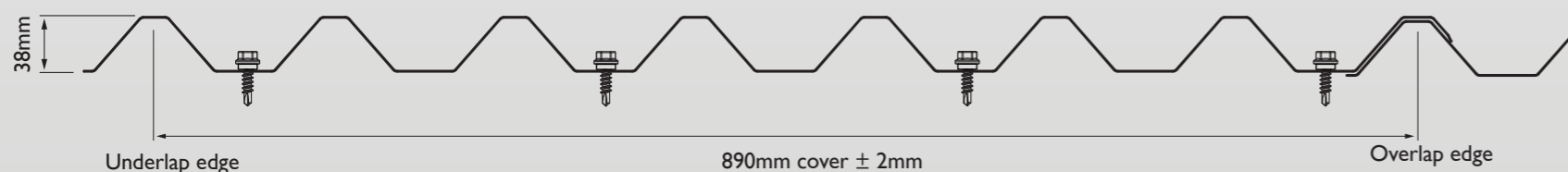


S7 WALLING IN REGIONS A & W

0.40mm BMT G550 AZ150

JUNE 2017



Maximum Allowable Internal Spans (mm) - Wind

Terrain Category	5m Maximum Height				10m Maximum Height					
	KI	Region A		Region W		KI	Region A		Region W	
		End	Internal	End	Internal		End	Internal	End	Internal
1.0	1.0	2100	3000	1720	2470	1.0	1970	2820	1590	2280
	1.5	1700	2430	1420	2030	1.5	1570	2250	1300	1870
	2.0	1470	2100	1210	1730	2.0	1350	1940	1090	1570
	3.0	1160	1660	890	1280	3.0	1050	1500	770	1110
1.5	1.0	2100	3000	1910	2730	1.0	2100	3000	1700	2440
	1.5	1860	2670	1540	2210	1.5	1680	2410	1400	2010
	2.0	1590	2280	1330	1900	2.0	1450	2080	1190	1710
	3.0	1280	1830	1020	1460	3.0	1140	1640	870	1250
2.0	1.0	2100	3000	2100	3000	1.0	2100	3000	1840	2640
	1.5	2100	3000	1680	2410	1.5	1820	2600	1510	2160
	2.0	1750	2500	1460	2090	2.0	1560	2230	1290	1850
	3.0	1400	2010	1140	1640	3.0	1240	1780	980	1400
2.5	1.0	2100	3000	2100	3000	1.0	2100	3000	2100	3000
	1.5	2100	3000	1790	2560	1.5	2100	3000	1680	2400
	2.0	1860	2660	1540	2200	2.0	1730	2480	1440	2070
	3.0	1480	2120	1220	1750	3.0	1400	2000	1140	1630
3.0	1.0	2100	3000	2100	3000	1.0	2100	3000	2100	3000
	1.5	2100	3000	1920	2750	1.5	2100	3000	1920	2750
	2.0	2060	2950	1630	2330	2.0	2060	2950	1630	2330
	3.0	1570	2250	1300	1870	3.0	1570	2250	1300	1870

Note: All end spans shall not exceed 70% of the maximum allowable internal span.

Fastener Details

Steel	Minimum 1.0mm (BMT)	12-14 x 20mm self drilling screws.
Timber	Hardwood (F17)	12-11 timber fixing screws with minimum 35mm embedment depth.
	Softwood (F7)	12-11 timber fixing screws with minimum 35mm embedment depth.

Spans exceeding 1200mm require side lap fixing mid-span with lap fastener spacing not greater than 1500mm. Lap fasten with 10 gauge self drilling screws.

Note: All fasteners shall be minimum class 4 and require neoprene seals.

Installation Requirements

Stratco S7 sheets should be laid into the prevailing wind within the maximum allowable spans allocated subject to the design criteria. Alternatively, a suitably qualified engineer may assess spans in accordance with the design pressures. Refer to Stratco if any criteria is outside that as nominated on this detail sheet.

Maintenance Requirements

The performance of Stratco S7 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 S7 is used in corrosive environments, cleaning should be performed more often. It is important that screws have the same life expectancy as the S7 cladding specified. Packs of S7 should always be kept dry and stored above ground level on site. If sheets become wet, they should be separated, 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.

Design Pressures (kPa)

Span (mm)	Serviceability	Strength
	Internal	Internal
900	3.13	4.55
1200	2.52	3.75
1500	2.00	3.07
1800	1.57	2.50
2100	1.23	2.05
2400	0.98	1.72
2700	0.83	1.50
3000	0.76	1.40

Design Criteria

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

- Region A & W with a design return period of 500 years for Strength Limit State and 25 years for Serviceability Limit State.
- Region A: $V_R = 45\text{m/s}$ strength, 37m/s serviceability
Region W: $V_R = 51\text{m/s}$ strength, 43m/s serviceability
- $M_s/M_t/M_d = 1.0$
- $K_{c,e} = K_{c,i} = 0.9$

Height (m)	Terrain/height Multiplier ($M_{z,cat}$)				
	1.0	1.5	2.0	2.5	3.0
≤ 5.0	1.05	0.98	0.91	0.87	0.83
≤ 10.0	1.12	1.06	1	0.92	0.83

Pressure Coefficients for Roofing of Enclosed Building:

Internal, $C_{p,i} = +0.2$
External, $C_{p,e} = -0.65$

Allocated spans do not allow for Lee Zones, for areas within these zones, utilise the wind capacity tables to calculate spans based on the relevant allowance for Lee Multipliers.

Limitations

- Design pressures and maximum allowable spans are based on pan fixing with four screws per sheet per support.
- If fixing over insulation, screw length should be increased to ensure sufficient penetration of the fastener.
- Maximum allowable overhang is 300mm (walling) for Stratco S7 Roofing with the back-span to be minimum 1.5 x the deck overhang.
- Refer AS/NZS 1170.2 for definition of local pressure (KI) zones. KI=3.0 is only applicable for buildings with an aspect ratio greater than 1.0. Aspect ratio defined as the average building height divided by the smaller of building length and width.

Notes

- Design criteria determined in accordance with AS/NZS 1170.2:2012 Wind Actions.