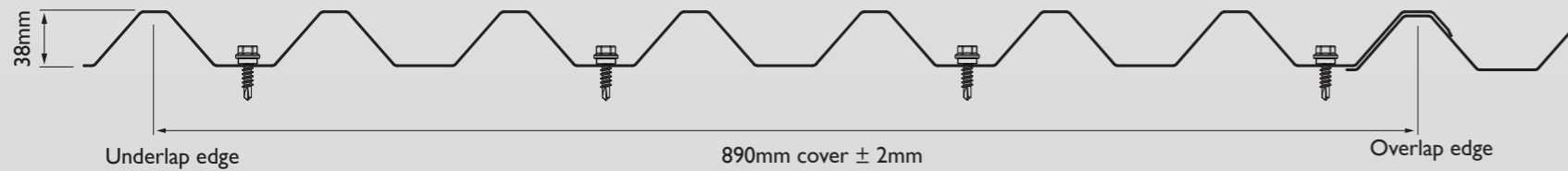


# S7 WALLING IN REGIONS A & W

## 0.55mm BMT G550 AZ150



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	2680	3840	2290	3280	1.0	2460	3520	2120	3030
	1.5	2190	3140	1870	2680	1.5	2030	2900	1700	2440
	2.0	1880	2690	1560	2230	2.0	1710	2450	1380	1980
	3.0	1410	2020	1070	1530	3.0	1230	1770	880	1260
1.5	1.0	3150	4500	2490	3560	1.0	2640	3780	2260	3240
	1.5	2380	3400	2050	2930	1.5	2170	3100	1840	2640
	2.0	2050	2940	1730	2480	2.0	1850	2650	1530	2190
	3.0	1590	2280	1260	1800	3.0	1380	1980	1040	1490
2.0	1.0	3150	4500	2750	3940	1.0	2920	4180	2420	3470
	1.5	2610	3740	2240	3200	1.5	2320	3320	1990	2850
	2.0	2250	3220	1920	2750	2.0	2000	2860	1680	2410
	3.0	1780	2550	1460	2090	3.0	1540	2210	1200	1720
2.5	1.0	3150	4500	3080	4400	1.0	3150	4500	2730	3910
	1.5	2800	4000	2360	3380	1.5	2590	3710	2220	3180
	2.0	2370	3390	2040	2920	2.0	2230	3190	1910	2730
	3.0	1900	2720	1580	2260	3.0	1770	2530	1440	2070
3.0	1.0	3150	4500	3150	4500	1.0	3150	4500	3150	4500
	1.5	3150	4500	2500	3580	1.5	3150	4500	2500	3580
	2.0	2510	3590	2160	3090	2.0	2510	3590	2160	3090
	3.0	2020	2890	1700	2430	3.0	2020	2890	1700	2430

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
1200	2.87	3.90
1500	2.51	3.38
1800	2.17	2.91
2100	1.88	2.49
2400	1.62	2.12
2700	1.39	1.80
3000	1.20	1.53
3300	1.04	1.30
3600	0.92	1.13
3900	0.83	1.00
4200	0.77	0.93
4500	0.75	0.90

### 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,  $37\text{m/s}$  serviceability  
Region W:  $V_R = 51\text{m/s}$  strength,  $43\text{m/s}$  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
$\leq 5.0$	1.05	0.98	0.91	0.87	0.83
$\leq 10.0$	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 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.