

Stramit® Cladding Solutions for Region D

This update covers cladding solutions for Region D wind pressures. Wind pressure capacities are based on the latest LHL testing data for roofs, and on the AS4040.3 testing regime for walls. Ongoing research and development ensures that Stramit® products are tested or witnessed by independent organisations such as the Cyclone Testing Station at James Cook University and the University of Adelaide.

Note: Data subject to change because of ongoing testing. See the Stramit website for latest information.

Assumptions

Region D, Importance Level 2, No shielding, Flat topography
 Roof height 5m or 10m, Roof height/building length ≤ 0.5
 Roof slope ≤ 10 degrees
 Enclosed building, Dominant opening on one wall

Strength: $V_R = 88$ m/s

Serviceability: $V_R = 53$ m/s

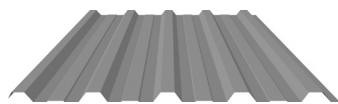
$M_d = M_t = M_s = C_{dyn} = 1.0$

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

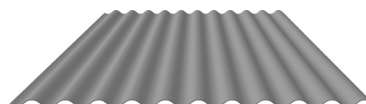
$C_{p,e} = -0.9$ (roof), -0.65 (wall)

Combination factors $K_{c,e} = K_{c,i} = 0.9$

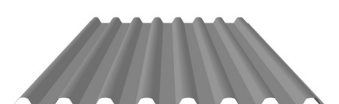
$K_a = K_p = 1.0$



Stramit Monoclad®



Stramit® Corrugated



Stramit Longspan®

Fixing

STRAMIT® SHEETING	FASTENER DETAILS				
	No per sheet per support	Roofing screws** – crest fixed with Buildex cyclone caps or equivalent		Walling screws* – pan/valley fixed	
		Steel supports #	Timber supports	Steel supports #	Timber supports
Monoclad®	4	No 14-10x50	No 14-10x65 Type 17	No 14-10x20	No 14-10x25 Type 17
Corrugated®	5	No 14-10x42	No 14-10x65 Type 17		
Longspan®	4	No 14-10x50	No 14-10x65 Type 17		

* All walling spans should have No 8-15x15mm sidelap fasteners at midspan

** Roof sheeting spans over 900mm should have No 8-15x15mm sidelap fasteners at midspan

All steel supports should be minimum 1.5mm thick

All screws should be hex-head self drilling & threading screws.

All other information as given in the Stramit® Cyclonic Areas Roof & Wall Cladding design supplement on the Stramit website.

Stramit® Cladding Solutions for Region D

STRAMIT® ROOFING SOLUTIONS FOR REGION D - DESIGN PRESSURES AS PER AS/NZS 1170.2:2011																
Roof Height	Terrain Category	Local press factor LPF K _f	Roof Pressure (kPa) serv strength		Solutions for Stramit® Roofing											
					Monoclad® with cyclone caps				Longspan® with cyclone caps				Corrugated with cyclone caps			
					0.42mm BMT		0.48mm BMT		0.42mm BMT		0.48mm BMT		0.42mm BMT		0.48mm BMT	
Internal	Equal	Internal	Equal	Internal	Equal	Internal	Equal	Internal	Equal	Internal	Equal	Internal	Equal			
<=5	1&2	1	1.84	6.04	1150	1050	1450	1350	1150	1100	1350	1250	1100	900	1400	1200
		1.5	2.59	7.74	950	850	1150	1050	1000	900	1100	1000	950	900	1150	1050
		2	3.34	9.44	800	750	950	850	800	750	900	800	800	750	950	850
	2.5	1	1.26	5.12	1250	1150	1650	1500	1300	1250	1550	1450	1200	900	1600	1200
		1.5	1.78	6.56	1100	1000	1350	1250	1100	1050	1250	1150	1050	900	1300	1200
		2	2.30	8.00	900	850	1150	1050	950	850	1050	950	1050	950	1100	1000
	3	1	1.15	4.28	1400	1350	1800	1700	1450	1400	1700	1650	1200	900	1600	1200
		1.5	1.62	5.49	1200	1150	1550	1450	1250	1150	1450	1350	1150	900	1500	1200
		2	2.09	6.69	1050	1000	1350	1200	1100	1050	1250	1150	1050	900	1300	1150
<=10	1&2	1	2.09	6.69	1050	1000	1350	1200	1100	1050	1250	1150	1050	900	1300	1150
		1.5	2.95	8.57	850	800	1050	950	900	800	1000	900	850	800	1050	950
		2	3.81	10.45	750	650	850	700	750	650	800	700	750	650	850	750
	2.5	1	1.40	5.98	1150	1050	1450	1350	1200	1100	1350	1250	1100	900	1400	1200
		1.5	1.97	7.66	950	900	1150	1050	1000	900	1100	1000	950	900	1150	1050
		2	2.54	9.34	800	750	950	850	850	750	900	800	800	750	950	850
	3	1	1.15	5.30	1250	1150	1600	1500	1300	1200	1500	1400	1200	900	1550	1200
		1.5	1.62	6.79	1050	1000	1300	1200	1100	1000	1250	1150	1050	900	1250	1150
		2	2.09	8.28	900	850	1100	1000	950	850	1050	900	900	850	1050	1000
3	1	3.03	11.26	650	600	750	600	650	550	700	600	700	600	800	700	

STRAMIT® WALLING SOLUTIONS FOR REGION D - DESIGN PRESSURES AS PER AS/NZS 1170.2:2011																
Wall Height	Terrain Category	Local press factor LPF K _f	Wall Pressure (kPa) serv strength		Solutions for Stramit® Walling											
					Monoclad®				Longspan®				Corrugated			
					0.42mm BMT		0.48mm BMT		0.42mm BMT		0.48mm BMT		0.42mm BMT		0.48mm BMT	
Internal	Equal	Internal	Equal	Internal	Equal	Internal	Equal	Internal	Equal	Internal	Equal	Internal	Equal			
<=5	1&2	1	1.42	5.09	1000	950	1050	950	900	850	1150	1050	1150	1050	1300	1200
		1.5	1.96	6.32	850	800	850	800	750	700	900	850	1000	900	1100	1050
		2	2.51	7.55	700	650	750	650	600	550	750	650	850	800	950	850
	2.5	1	0.98	4.32	1100	1050	1150	1100	1100	1000	1300	1200	1300	1150	1450	1400
		1.5	1.35	5.36	950	900	1000	900	850	800	1100	1000	1100	1050	1250	1150
		2	1.72	6.40	850	750	850	800	750	700	900	800	950	900	1100	1000
	3	1	0.89	3.61	1250	1150	1300	1250	1300	1200	1500	1400	1550	1400	1500	1500
		1.5	1.23	4.48	1100	1050	1150	1050	1050	950	1250	1150	1250	1150	1450	1350
		2	1.57	5.35	1000	900	1000	950	850	800	1100	1000	1100	1050	1250	1150
<=10	1&2	1	1.62	5.65	950	850	950	900	850	750	1050	950	1050	1000	1200	1150
		1.5	2.24	7.00	800	700	800	700	700	600	800	750	900	850	1000	950
		2	2.85	8.36	650	550	650	550	550	500	650	550	800	700	850	750
	2.5	1	1.08	5.04	1000	950	1050	1000	950	850	1150	1050	1150	1050	1300	1250
		1.5	1.49	6.26	850	800	850	800	750	700	950	850	1000	900	1100	1050
		2	1.90	7.47	750	650	750	650	650	550	750	650	850	800	950	850
	3	1	0.89	4.47	1100	1050	1150	1050	1050	950	1250	1150	1250	1150	1450	1350
		1.5	1.23	5.55	950	850	950	900	850	800	1050	950	1050	1000	1250	1150
		2	1.57	6.62	800	750	850	750	700	650	850	800	950	850	1050	1000

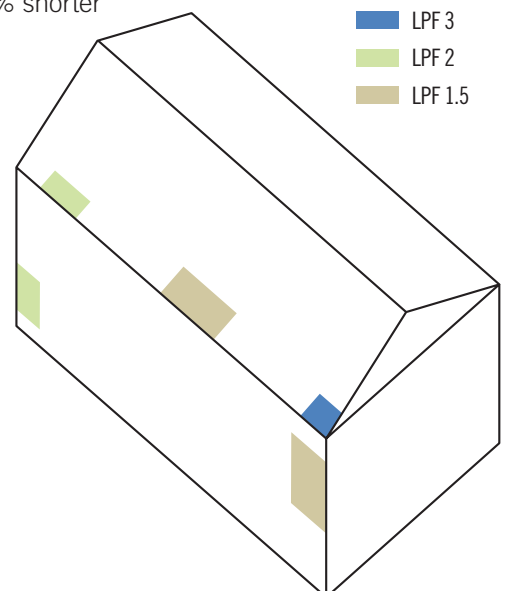
Span Configurations

Internal = Internal spans with end spans at least 20% shorter

Equal = All spans equal, with minimum of 3 spans

Local Pressure Factors

Corner areas may experience higher pressures and require reduced spans or increased fixing.



For further information call (08) 9493 8800
Or visit www.stramit.com.au