## REGION D DESIGN

**JUNE 2012** 



# Wall cladding solutions for Region D Stramit Minirib® profile with Miniseam™ join

This update provides possible wall cladding solutions for Region D wind pressures using Stramit Minirib® wall cladding with Miniseam™ joint system. Stramit Minirib® cladding is now available in Western Australia with an optional overlapping Miniseam™ edge connection that provides neat, interlocking sheet ends. The solution is ideal for economical low-rise commercial buildings and transportable homes. Wind pressure capacities shown here are based on the AS4040.3 testing regime for walls.

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:  $V_R = 88 \text{ m/s}$ 

Serviceability:  $V_R = 53 \text{ m/s}$ 

$$\mathrm{M_{d}=M_{t}=M_{s}=C_{dyn}=1.0}$$

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

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

Combination factors  $K_{ce} = K_{ci} = 0.9$ 

$$K_a = K_p = 1.0$$



Stramit Minirib<sup>®</sup> Cladding with Miniseam<sup>™</sup> Join



Miniseam<sup>™</sup> Jointing System

### **Fixing**

	FASTENER DETAILS			
STRAMIT® SHEETING	No per sheet per support	Walling screws* - pan fixed on steel supports#		
Minirib® with Miniseam™ join	8	No 14-10x25		

<sup>\*</sup> All screws should be hex-head self-drilling screws with sealing washers # All steel supports should be high tensile material, minimum 1.2mm thick Minimum 8 fasteners per sheet per support.

### **Fixing Diagram**

850mm cover with Miniseam\* connection

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

### Minirib<sup>®</sup> cladding with Miniseam<sup>™</sup> join (Region D)

### **Recommended Spans**

STRAMIT MINIRIB® WALL CLADDING WITH MINISEAM™ JOIN REGION D – DESIGN PRESSURES AS PER AS/NZS 1170.2:2011							
Roof Terrain Height Category	Local press	Wall Pressure (kPa)		Minirib®with Miniseam™ Spans (mm)			
	factor LPF	Wall 100	ouro (ni u)	0.42mm BMT			
	oatogory	K,	serviceability	strength	Internal	Equal	
	1&2	1	1.42	5.09	850	850	
		1.5	1.96	6.32	800	800	
		2	2.51	7.55	750	700	
<=5	2.5	1	0.98	4.32	950	950	
		1.5	1.35	5.36	850	850	
		2	1.72	6.40	800	800	
	3	1	0.89	3.61	1000	1000	
		1.5	1.23	4.48	850	850	
		2	1.57	5.35	850	850	
<=10	1&2	1	1.62	5.65	850	850	
		1.5	2.24	7.00	750	750	
		2	2.85	8.36	700	650	
	2.5	1	1.08	5.04	950	950	
		1.5	1.49	6.26	850	850	
		2	1.90	7.47	800	700	
	3	1	0.89	4.47	1000	1000	
		1.5	1.23	5.55	850	850	
		2	1.57	6.62	850	800	

#### **Pressures**

STRAMIT MINIRIB® CLADDING WITH MINISEAM™ JOIN SERVICEABILITY LIMIT STATE CAPACITY (CYCLONIC)						
pressure (kPa) at the spans (mm) shown						
			wall cladding spans (pan fixed)			
thickness	fasteners	span	450	600	900	1200
bmt (mm)	per sheet	type				
0.42	8	internal	9.24	3.99	1.21	0.50
		equal	9.24	3.99	1.21	0.50
		double	9.24	3.99	1.21	0.50

STRAMIT MINIRIB® CLADDING WITH MINISEAM™ JOIN STRENGTH LIMIT STATE CAPACITY (CYCLONIC)						
pressure (kPa) at the spans (mm) shown						
			wall cladding spans (pan fixed)			
thickness	fasteners	span	450	600	900	1200
bmt (mm)	per sheet	type				
0.42	8	internal	9.77	9.77	6.63	4.95
		equal	8.88	8.88	6.03	4.50
		double	7.81	7.81	5.31	3.96

Tables are based on testing to AS1562 and AS4040.0 and 3. Internal spans must have both end spans 20% shorter.

Values only valid for use with high tensile steel support members 1.2mm or thicker.

### **Span Configurations**

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

Equal = All spans equal, with minimum of 3 spans

Double = Two equally spaced spans

### **Local Pressure Factors**

Wall edges experience higher pressures and require reduced

spans or increased fixing.





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

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