

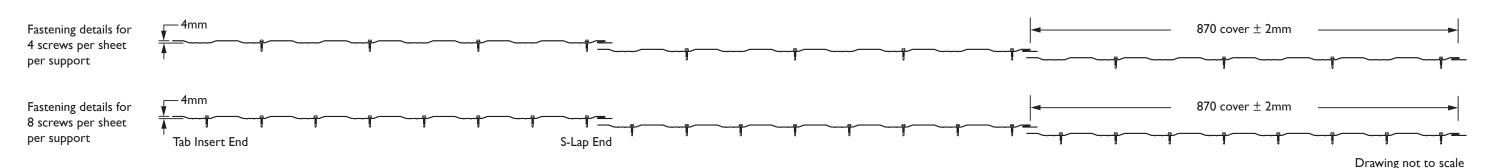
# STRATCLAD™ WALL CLADDING

**Cyclonic Region C** 

WALLING

September 2013

0.35mm BMT G550 AZ150



Des	Design Pressures - Strength Limit State Capacity (kPa)											
Span	8 s	crews per sh	eet	4 screws per sheet								
(mm)	Single	End	Internal	Single	End	Internal						
450	9.30	9.30	10.17	8.20	8.20	8.97						
600	7.79	7.79	8.52	6.63	6.63	7.25						
900	5.80	5.80	6.34	4.50	4.50	4.92						

5.69

3.70

3.70

Fastener Details								
Steel	Minimum 1.0mm (BMT)	12-14x20mm Hex head self drilling screws at every pan or every second pan						
Timebau	Hardwood (F11)	Minimum 12 gauge timber fix screws with neoprene washe embedded at least 35mm into timber.						
Timber	Softwood (F5)	Minimum 12 gauge timber fix screws with neoprene washer embedded at least 35mm into timber.						

				Maximu	ım Allowa	able Span	s (mm)				
3m Maximum Height							5m l	Maximum H	eight		
Terrain	5 (15)	8 screws	per sheet	4 screws	per sheet	5 (15)	8 screws	per sheet	4 screws	per sheet	
Category	KI	Pz (kPa)	End	Internal	End	Internal	Pz (kPa)	End	Internal	End	Internal
	1.0	3.43	1200	1200	1200	1200	3.86	1200	1200	1080	1200
1.0	1.5	4.26	1200	1200	950	1060	4.79	1200	1200	840	920
	2.0	5.08	1200	1200	790	870	5.72	910	1110	700	770
	1.0	3.16	1200	1200	1200	1200	3.36	1200	1200	1200	1200
1.5	1.5	3.92	1200	1200	1050	1200	4.17	1200	1200	970	1100
	2.0	4.68	1200	1200	860	940	4.98	1200	1200	810	880
	1.0	2.90	1200	1200	1200	1200	2.90	1200	1200	1200	1200
2.0	1.5	3.60	1200	1200	1200	1200	3.60	1200	1200	1200	1200
	2.0	4.30	1200	1200	940	1050	4.30	1200	1200	940	1050
	1.0	2.65	1200	1200	1200	1200	2.65	1200	1200	1200	1200
2.5	1.5	3.29	1200	1200	1200	1200	3.29	1200	1200	1200	1200
	2.0	3.93	1200	1200	1050	1200	3.93	1200	1200	1050	1200
	1.0	2.41	1200	1200	1200	1200	2.41	1200	1200	1200	1200
3.0	1.5	2.99	1200	1200	1200	1200	2.99	1200	1200	1200	1200
	2.0	3.57	1200	1200	1200	1200	3.57	1200	1200	1200	1200

Note: These values are for use with steel supports with a minimum thickness of I.0mm BMT G550.

### Fixing Recommendations

1200

5.20

Stratclad sheets should be laid into the prevailing wind and tab end should be inserted fully into the S-lap of the preceding sheet. They should be fixed within the recommended support spacings. Side lap fixing is recommended at no greater than 300mm centres for external applications. For internal applications where support spacings exceed 1000mm it is recommended side laps are fastened mid-span. Use either 8x12 mm self drill stitching screws (with seal) or 3.2 mm sealed blind rivets.

### Maintenance Requirements

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

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

- I. Region C with design return period of 500 years.
- $V_r = F_c 66 \text{m/s}$  (strength limit state), with  $F_c = 1.05$
- $M_s/M_t/M_d = 1.00$
- 4.  $K_{c,e} = K_{c,i} = 0.90$

Height	Terrain/Height Multiplier (Mz,cat)								
(m)	1.0	1.5	2.0	2.5	3.0				
≤3.0	0.99	0.95	0.91	0.87	0.83				
≤5.0	1.05	0.98	0.91	0.87	0.83				

Pressure Coefficients:

Internal  $C_{p,i} = +0.70$ 

External  $C_{p,e} = -0.65$ 

### Limitations

- I. Design pressures and maximum allowable spans are based on four or eight fasteners per sheet per support.
- 2. Maximum allowable spans are based on design pressures for ultimate limit state only. If serviceability is a design consideration, end and internal spans shall be limited to 750mm in Terrain Category 1.0 1.5 and 800mm in Terrain Category 2.0 3.0.
- 3. When fixing over insulation, screw length should be increased to ensure sufficient penetration of the fastener.
- 4. When a local pressure factor (KI) of 3 is required refer to the Design Pressure table for individual analysis.
- 5. Refer AS/NZS 1170.2 for definition of local pressure zones.

### Notes

- I. Cyclonic Fatigue Testing in accordance with AS4040.3, Methods of testing sheet roof and wall cladding, Method 3: Resistance to wind pressure for cyclonic regions.
- 2. Design Criteria are determined in accordance with AS/NZS 1170.2:2011 Wind Actions.
- 3. Stratclad Walling Cyclonic Testing, Report No. 180, 10/2013 Stratco Testing Facility, Gepps Cross, South Australia.

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# STRATCLAD<sup>TM</sup> WALL CLADDING

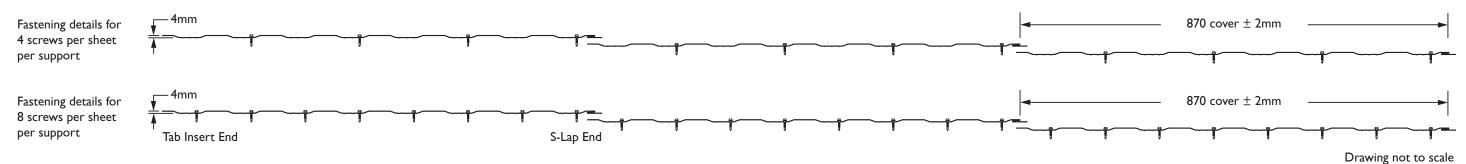
**Cyclonic Region D** 

WALLING

September 2013

WALLING

0.35mm BMT G550 AZ150



Design Pressures - Strength Limit State Capacity (kPa)										
Span	8 s	crews per sh	eet	4 screws per sheet						
(mm)	Single	End	Internal	Single	End	Internal				
450	9.30	9.30	10.17	8.20	8.20	8.97				
600	7.79	7.79	8.52	6.63	6.63	7.25				
900	5.80	5.80	6.34	4.50	4.50	4.92				
1200	5.20	5.20	5.69	3.70	3.70	4.05				

Fastener Details								
Steel	Minimum 1.0mm (BMT)	12-14x20mm Hex head self drilling screws at every pan or every second pan.						
Timber	Hardwood (F11)	Minimum 12 gauge timber fix screws with neoprene washer embedded at least 35mm into timber.						
	Softwood (F5)	Minimum 12 gauge timber fix screws with neoprene washer embedded at least 35mm into timber.						

				Maximu	ım Allowa	able Span	s (mm)				
3m Maximum Height							5m l	Maximum H	eight		
Terrain	5 (15)	8 screws	per sheet	4 screws	per sheet	5 (15)	8 screws	per sheet	4 screws	per sheet	
Category	KI	Pz (kPa)	End	Internal	End	Internal	Pz (kPa)	End	Internal	End	Internal
	1.0	5.53	970	1200	730	800	6.22	810	920	640	710
1.0	1.5	6.87	710	800	570	630	7.72	600	680	490	550
	2.0	8.20	550	630	450	510	9.22	450	530	-	-
	1.0	5.09	1200	1200	790	860	5.42	1000	1200	740	810
1.5	1.5	6.32	790	900	630	690	6.73	730	820	590	650
	2.0	7.55	620	700	500	570	8.03	570	650	460	520
	1.0	4.67	1200	1200	860	940	4.67	1200	1200	860	940
2.0	1.5	5.80	890	1060	690	760	5.80	890	1060	690	760
	2.0	6.93	700	790	560	630	6.93	700	790	560	630
	1.0	4.27	1200	1200	950	1060	4.27	1200	1200	950	1060
2.5	1.5	5.30	1060	1200	760	830	5.30	1060	1200	760	830
	2.0	6.33	790	900	630	690	6.33	790	900	630	690
	1.0	3.89	1200	1200	1060	1200	3.89	1200	1200	1060	1200
3.0	1.5	4.83	1200	1200	830	910	4.83	1200	1200	830	910
	2.0	5.76	900	1080	700	760	5.76	900	1080	700	760

Note: These values are for use with steel supports with a minimum thickness of I.0mm BMT G550.

# Design Criteria

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

- I. Region D with design return period of 500 years.
- $V_r = F_D 80 \text{m/s}$  (strength limit state), with  $F_D = 1.10$
- $M_s/M_t/M_d = 1.00$
- 4.  $K_{c,e} = K_{c,i} = 0.90$

Height	Terrain/Height Multiplier (Mz,cat)								
(m)	1.0	1.5	2.0	2.5	3.0				
≤3.0	0.99	0.95	0.91	0.87	0.83				
≤5.0	1.05	0.98	0.91	0.87	0.83				

Pressure Coefficients:

Internal  $C_{p,i} = +0.70$ 

External  $C_{p,e} = -0.65$ 

### Limitations

- I. Design pressures and maximum allowable spans are based on four or eight fasteners per sheet per support.
- 2. Maximum allowable spans are based on design pressures for ultimate limit state only. If serviceability is a design consideration, end and internal spans shall be limited to 600mm in Terrain Category 1.0 1.5 and 750mm in Terrain Category 2.0 3.0.
- 3. When fixing over insulation, screw length should be increased to ensure sufficient penetration of the fastener.
- 4. When a local pressure factor (KI) of 3 is required refer to the Design Pressure table for individual analysis.
- 5. Refer AS/NZS 1170.2 for definition of local pressure zones.

## Fixing Recommendations

Stratclad sheets should be laid into the prevailing wind and tab end should be inserted fully into the S-lap of the preceding sheet. They should be fixed within the recommended support spacings. Side lap fixing is recommended at no greater than 300mm centres for external applications. For internal applications where support spacings exceed 1000mm it is recommended side laps are fastened mid-span. Use either 8x12 mm self drill stitching screws (with seal) or 3.2 mm sealed blind rivets.

### Maintenance Requirements

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

## Notes

- I. Cyclonic Fatigue Testing in accordance with AS4040.3, Methods of testing sheet roof and wall cladding, Method 3: Resistance to wind pressure for cyclonic regions.
- 2. Design Criteria are determined in accordance with AS/NZS 1170.2:2011 Wind Actions.
- 3. Stratclad Walling Cyclonic Testing, Report No. 180, 10/2013 Stratco Testing Facility, Gepps Cross, South Australia.

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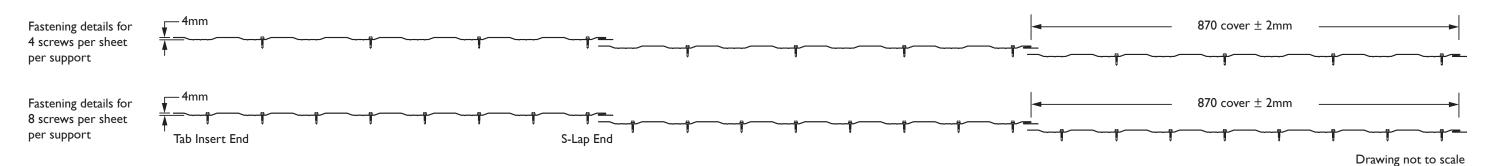
# STRATCLAD™ WALL CLADDING

**Cyclonic Region C** 

WALLING

September 2013

0.42mm BMT G550 AZ150



Desi	Design Pressures - Strength Limit State Capacity (kPa)										
Span (mm)	8 s	crews per sh	eet	4 screws per sheet							
	Single	End	Internal	Single	End	Internal					
450	10.50	10.50	11.48	9.40	9.40	10.28					
600	8.89	8.89	9.73	7.91	7.91	8.65					
900	6.80	6.80	7.44	5.70	5.70	6.23					
1200	6.20	6.20	6.78	4.50	4.50	4.92					

	Fastener Details							
Steel	Minimum 1.0mm (BMT)	12-14x20mm Hex head self drilling screws at every pan or every second pan.						
Timeban	Hardwood (F11)	Minimum 12 gauge timber fix screws with neoprene washer embedded at least 35mm into timber.						
Timber	Softwood (F5)	Minimum 12 gauge timber fix screws with neoprene washer embedded at least 35mm into timber.						

	Maximum Allowable Spans (mm)												
3m Maximum Height							5m l	Maximum H	eight				
Terrain	D (15)	8 screws	per sheet	4 screws	per sheet	D (1D)	8 screws	per sheet	4 screws	per sheet			
Category	KI	Pz (kPa)	End	Internal	End	Internal	Pz (kPa)	End	Internal	End	Internal		
	1.0	3.43	1200	1200	1200	1200	3.86	1200	1200	1200	1200		
1.0	1.5	4.26	1200	1200	1200	1200	4.79	1200	1200	1090	1200		
[	2.0	5.08	1200	1200	1020	1140	5.72	1200	1200	890	990		
1	1.0	3.16	1200	1200	1200	1200	3.36	1200	1200	1200	1200		
1.5	1.5	3.92	1200	1200	1200	1200	4.17	1200	1200	1200	1200		
Ī	2.0	4.68	1200	1200	1130	1200	4.98	1200	1200	1040	1170		
1	1.0	2.90	1200	1200	1200	1200	2.90	1200	1200	1200	1200		
2.0	1.5	3.60	1200	1200	1200	1200	3.60	1200	1200	1200	1200		
Ī	2.0	4.30	1200	1200	1200	1200	4.30	1200	1200	1200	1200		
	1.0	2.65	1200	1200	1200	1200	2.65	1200	1200	1200	1200		
2.5	1.5	3.29	1200	1200	1200	1200	3.29	1200	1200	1200	1200		
Ī	2.0	3.93	1200	1200	1200	1200	3.93	1200	1200	1200	1200		
ĺ	1.0	2.41	1200	1200	1200	1200	2.41	1200	1200	1200	1200		
3.0	1.5	2.99	1200	1200	1200	1200	2.99	1200	1200	1200	1200		
	2.0	3.57	1200	1200	1200	1200	3.57	1200	1200	1200	1200		

Note: These values are for use with steel supports with a minimum thickness of 1.0mm BMT G550.

# Design Criteria

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

- Region C with design return period of 500 years.
- $V_r = F_c 66 \text{m/s}$  (strength limit state), with  $F_c = 1.05$
- $M_s/M_t/M_d = 1.00$
- $K_{c,e}=K_{c,i}=0.90$

Height	Terrain/Height Multiplier (Mz,cat)								
(m)	1.0	1.5	2.0	2.5	3.0				
≤3.0	0.99	0.95	0.91	0.87	0.83				
≤5.0	1.05	0.98	0.91	0.87	0.83				

Pressure Coefficients:

 $C_{p,i} = +0.70$ Internal

 $C_{p,e} = -0.65$ External

### Limitations

- Design pressures and maximum allowable spans are based on four or eight fasteners per sheet per support.
- Maximum allowable spans are based on design pressures for ultimate limit state only. If serviceability is a design consideration, end and internal spans shall be limited to 800mm in Terrain Category 1.0 - 1.5 and 900mm in Terrain Category 2.0 - 3.0.
- When fixing over insulation, screw length should be increased to ensure sufficient penetration of the fastener.
- When a local pressure factor (KI) of 3 is required refer to the Design Pressure table for individual analysis.
- Refer AS/NZS 1170.2 for definition of local pressure zones.

## Fixing Recommendations

Stratclad sheets should be laid into the prevailing wind and tab end should be inserted fully into the S-lap of the preceding sheet. They should be fixed within the recommended support spacings. Side lap fixing is recommended at no greater than 300mm centres for external applications. For internal applications where support spacings exceed 1000mm it is recommended side laps are fastened mid-span. Use either 8x12 mm self drill stitching screws (with seal) or 3.2 mm sealed blind rivets.

### Maintenance Requirements

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

### Notes

- 1. Cyclonic Fatigue Testing in accordance with AS4040.3, Methods of testing sheet roof and wall cladding, Method 3: Resistance to wind pressure for cyclonic regions.
- 2. Design Criteria are determined in accordance with AS/NZS 1170.2:2011 Wind Actions.
- Stratclad Walling Cyclonic Testing, Report No. 177, 09/2013 Stratco Testing Facility, Gepps Cross, South Australia.

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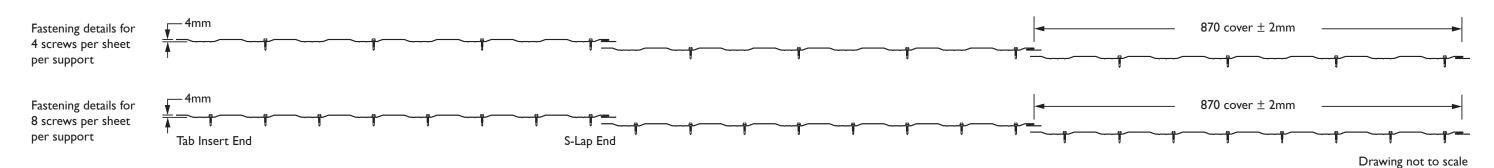
# STRATCLAD<sup>TM</sup> WALL CLADDING

**Cyclonic Region D** 

WALLING

September 2013

0.42mm BMT G550 AZ150



Design Pressures - Strength Limit State Capacity (kPa)								
Span	8 s	crews per sh	eet	4 screws per sheet				
(mm)	Single	End	Internal	Single End		Internal		
450	10.50	10.50	11.48	9.40	9.40	10.28		
600	8.89	8.89	9.73	7.91	7.91	8.65		
900	6.80	6.80	7.44	5.70	5.70	6.23		
1200	6.20	6.20	6.78	4.50	4.50	4.92		

Fastener Details								
Steel	Minimum 1.0mm (BMT)							
Timber	Hardwood (F11)	Minimum 12 gauge timber fix screws with neoprene washe embedded at least 35mm into timber.						
	Softwood (F5)	Minimum 12 gauge timber fix screws with neoprene washer embedded at least 35mm into timber.						

Maximum Allowable Spans (mm)											
		3m Maximum Height				5m Maximum Height					
Terrain Category	KI	Pz (kPa)	8 screws per sheet		4 screws per sheet		D- (I-D-)	8 screws per sheet		4 screws per sheet	
			End	Internal	End	Internal	Pz (kPa)	End	Internal	End	Internal
1.0	1.0	5.53	1200	1200	930	1020	6.22	1100	1200	810	900
	1.5	6.87	880	1060	720	800	7.72	740	840	620	700
	2.0	8.20	670	770	560	640	9.22	560	650	460	540
1.5	1.0	5.09	1200	1200	1020	1140	5.42	1200	1200	950	1050
	1.5	6.32	1040	1200	800	880	6.73	910	1200	740	820
	2.0	7.55	760	870	640	720	8.03	690	790	580	660
	1.0	4.67	1200	1200	1130	1200	4.67	1200	1200	1130	1200
2.0	1.5	5.80	1200	1200	880	970	5.80	1200	1200	880	970
	2.0	6.93	870	1040	710	790	6.93	870	1040	710	790
2.5	1.0	4.27	1200	1200	1200	1200	4.27	1200	1200	1200	1200
	1.5	5.30	1200	1200	970	1080	5.30	1200	1200	970	1080
	2.0	6.33	1040	1200	790	880	6.33	1040	1200	790	880
3.0	1.0	3.89	1200	1200	1200	1200	3.89	1200	1200	1200	1200
	1.5	4.83	1200	1200	1080	1200	4.83	1200	1200	1080	1200
	2.0	5.76	1200	1200	880	980	5.76	1200	1200	880	980

Note: These values are for use with steel supports with a minimum thickness of I.0mm BMT G550.

# Design Criteria The following criteri

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

- I. Region D with design return period of 500 years.
- $V_r = F_D 80 \text{m/s}$  (strength limit state), with  $F_D = 1.10$
- 3.  $M_s/M_t/M_d = 1.00$
- 4.  $K_{c,e} = K_{c,i} = 0.90$

Height	Terrain/Height Multiplier (Mz,cat)						
(m)	1.0	1.5	2.0	2.5	3.0		
≤3.0	0.99	0.95	0.91	0.87	0.83		
≤5.0	1.05	0.98	0.91	0.87	0.83		

Pressure Coefficients:

Internal  $C_{p,i} = +0.70$ 

External  $C_{p,e} = -0.65$ 

### Limitations

- I. Design pressures and maximum allowable spans are based on four or eight fasteners per sheet per support.
- 2. Maximum allowable spans are based on design pressures for ultimate limit state only. If serviceability is a design consideration, end and internal spans shall be limited to 750mm in Terrain Category 1.0 1.5 and 850mm in Terrain Category 2.0 3.0.
- 3. When fixing over insulation, screw length should be increased to ensure sufficient penetration of the fastener.
- 4. When a local pressure factor (KI) of 3 is required refer to the Design Pressure table for individual analysis.
- 5. Refer AS/NZS 1170.2 for definition of local pressure zones.

## Fixing Recommendations

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### Maintenance Requirements

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### Notes

- I. Cyclonic Fatigue Testing in accordance with AS4040.3, Methods of testing sheet roof and wall cladding, Method 3: Resistance to wind pressure for cyclonic regions.
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