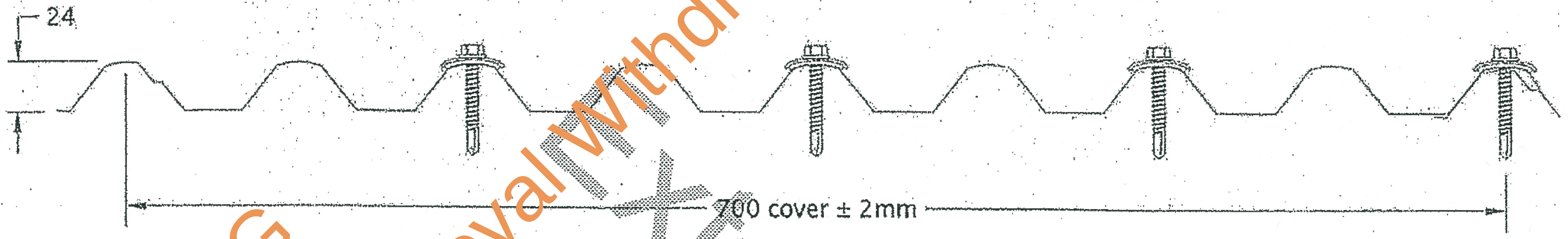
ACCEPTED FOR INCLUSION IN NT DEEMED TO COMPLY MANUAL BY THE NT BUILDING ADVISORY COMMITTEE

STRATCO

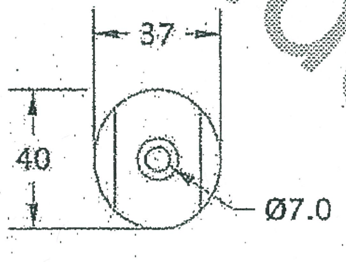
SMARTSPAN® ROOF CLADDING WITH CYCLONIC WASHERS



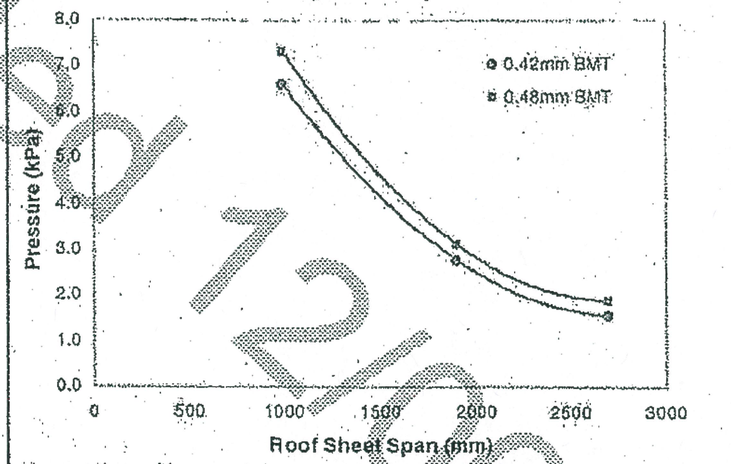
Fastener Details

Steel	1.5 - 4.0mm	Minimum 13 gauge x 50mm hex head screw with cyclonic washer assembly
Timber	Hardwood (F17)	Minimum 13 gauge hex head screw embedded at least 35mm into timber
	Softwood (F5)	Minimum 13 gauge hex head screw embedded at least 35mm into timber

NB: For spans > 900mm side lap fixing midspan using an 8 x 12mm self drilling screw or 3.2mm blind rivet is recommended. This provides a weather proof seal and secures the overlap if the roof is occasionally traversed.



1.0mm Cyclone Washer



Design Pressures Pz (kPa)

Span (mm)	0.42mm BMT Single	0.42mm BMT End	0.42mm BMT Internal	0.48mm BMT Single	0.48mm BMT End	0.48mm BMT Internal
1000	6.62	6.62	7.24	7.35	7.35	8.04
1300	5.05	5.05	5.53	5.61	5.61	6.13
1600	3.78	3.78	4.13	4.20	4.20	4.60
1900	2.79	2.79	3.05	3.13	3.13	3.42
2200	2.09	2.09	2.29	2.39	2.39	2.61
2500	1.68	1.68	1.84	1.99	1.99	2.17
2700	1.57	1.57	1.72	1.90	1.90	2.08

Maximum Allowable Spans (mm)

Terrain Category	Kl	5m Pz (kPa)	5m 0.42mm BMT Single	5m 0.42mm BMT End	5m 0.42mm BMT Internal	5m 0.48mm BMT Single	5m 0.48mm BMT End	5m 0.48mm BMT Internal	10m Pz (kPa)	10m 0.42mm BMT Single	10m 0.42mm BMT End	10m 0.42mm BMT Internal	10m 0.48mm BMT Single	10m 0.48mm BMT End	10m 0.48mm BMT Internal
1 & 2	1	4.16	1350	1500	1590	1610	1610	1700	4.61	1350	1390	1480	1500	1500	1590
	1.5	5.33	1240	1240	1330	1350	1350	1440	5.91	1120	1120	1220	1240	1240	1340
	2	6.50	1020	1020	1120	1130	1130	1230	7.20	-	-	1000	1020	1020	1120
2.5	1	3.53	1350	1660	1750	1770	1770	1860	4.12	1350	1510	1600	1620	1620	1710
	1.5	4.52	1350	1410	1500	1520	1520	1610	5.28	1250	1250	1340	1360	1360	1450
	2	5.52	1200	1200	1300	1310	1310	1410	6.43	1030	1030	1130	1150	1150	1240
3 & 4	1	2.95	1350	1800	1930	1960	1960	2050	3.65	1350	1630	1720	1740	1740	1830
	1.5	3.78	1350	1590	1680	1700	1700	1790	4.68	1350	1380	1470	1490	1490	1580
	2	4.61	1350	1390	1480	1500	1500	1590	5.71	1160	1160	1260	1280	1280	1370

1. Building Code of Australia (BCA) - Low-High-Low Pressure Testing
2. Design Criteria are determined in accordance with AS/NZS1170.2 2002 Wind Actions
3. Cyclonic Testing of Smartspan Roof Sheeting, Report No. 71, 08/2008

**Design Engineers Certification

Name: Trevor John
Registration Number: 106278
Date: 15/05/09
Signature:
**registered as a structural engineer in Australia

**Certifying Engineers Certification

Name: John Roeger
NT Registration Number: 16940ES
Date: 19-05-09
Signature:
**registered as a structural engineer in Northern Territory

Product Name
Smartspan

Product Description
0.42mm and 0.48mm BMT AS1397/G550 AZ150

Manufacturer's Name
Stratco (Australia) Pty Limited

Design Criteria

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

1. Region C with a design return period of 500 years.
2. $V_R = F_C$ 66m/s (limit state), with F_C = 1.05
3. $M_s/M_t/M_d$ = 1.00

Height (m)	Terrain/height Mulitplier ($M_{Z,cat}$) 1&2	2.5	3&4
<=5	0.95	0.88	0.80
<=10	1.00	0.95	0.89

Pressure Coefficients:
Internal Cpi = +0.7
External Cpe = -0.9

Limitations

1. Design pressures and maximum allowable spans are based on four fasteners per sheet per support.
2. For design criteria where h/d => 1 (Table 5.3(A)) and roof pitch =< 10° reduce batten spacing by 30%.
3. When fixing over insulation, screw length should be increased to ensure sufficient penetration of the fastener.
4. Not to be used with 0.55mm or 0.75mm metal battens.
5. Maximum allowable overhang is 200mm for roof cladding.
6. For elevated buildings that allow flow under, the internal pressure coefficient increases to +0.8, maximum allowable spans are to be reduced by 100mm.

Accepted for Inclusion

DTCM ref: M/116/07A (tested to L.H.L)

A/Chairman's Signature: P. Russell

Chairman's Name: PETER RUSSELL

Date of Approval: 11/6/09 Expiry Date: ~~11/6/12~~

New Expiry. 12/12/15
Signature.