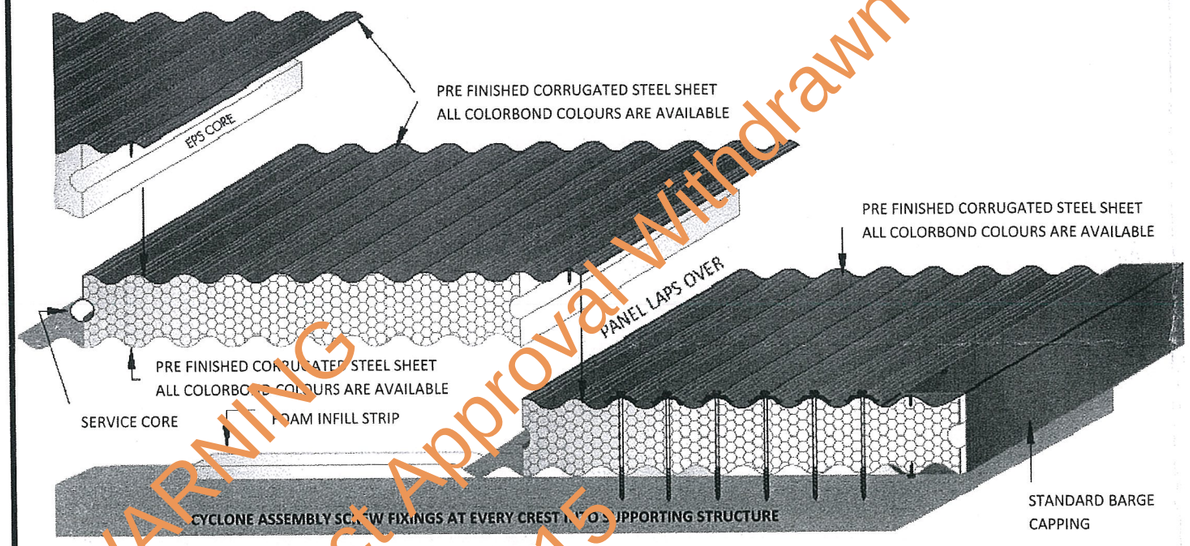
ACCEPTED FOR INCLUSION IN NT DEEMED TO COMPLY MANUAL BY THE NT BUILDING ADVISORY COMMITTEE

Product Description: A prefabricated panel comprising 0.42mm BMT corrugated roof sheeting bonded to both sides of a profiles EPS core.
Pre-finished in an extensive range of COLORBOND colors, top and bottom sheet. Total insulation R-Value ratings from R 3.02 to R 5.05 can be achieved.
Fire Rated to BCA GROUP 1 rating. After the panels are fixed in place there is virtually no maintenance required other than occasional wash down of soffits.

Ritek Custom Roof Panels



Custom Panel - Span Selection Tables

SPAN TABLE - CYCLONIC - NORTHERN TERRITORY

Midspan deflection up to span / 120 at serviceability limit state; Self weight deflection up to span / 700

Maximum unsupported Spans (mm)

		R VALUE		R VALUE		R VALUE		R VALUE	
	Strength Limit State Design	Winter	Summer	Wintor	Summer	Winter	Summer	Winter	Summer
		R3.02	R3.07	R3.41	R3.46	R4.34	R4.39	R5.00	R5.05
WIND CLASS (Permissible)	Wind Pressure (P) (kPa)	125mm PANEL		140mm PANEL		175mm PANEL		200mm PANEL	
TO AS4055	TO AS1170.2	MAX SPAN	MAX CANTILEVER	MAX SPAN	MAX CANTILEVER	MAX SPAN	MAX CANTILEVER	MAX SPAN	MAX CANTILEVER
C1-W41	3.11	4000	100 - 900	4500	100-1300	4500	100-1500	5300	100-1200
C2-W50	4.62	4000	100	4500	100	4500	100	5200	100
		3700	300	4420	300	4500	300	4780	300
		3000	600	3750	600	4110	600	4110	600
		2140	900	2970	900	3360	900	3360	900
C3-W60	6.65	2800	100	3300	100	3550	100	3550	100
		2360	300	2870	300	3120	300	3120	300
		1570	600	2130	600	2400	600	2400	600
				1460	300				

MAIN FIXING SCREWS - END SUPPORT FIXING (CLASS 4 WITH CYCLONE ASSEMBLY)

1. EVERY CREST
2. RAKED EXTERNAL WALLS running parallel to the span fixing point at every 200mm c/c

MAIN FIXING SCREWS - INTERNAL SUPPORT FIXING (CLASS 4 WITH CYCLONE ASSEMBLY)

1. EVERY CREST
2. RAKED EXTERNAL WALLS running parallel to the span fixing point at every 200mm c/c

Cyclone Washer Assembly Fixing
(Type 17 & Metal Teks)

Panel Thickness:

125, 140, 175 & 200 mm

Panel Lengths:

Generally straight panels can be supplied up to 20 m in length, curved panels up to 14 m in length and multi-curved panels up to 10 m in length. Longer panels can be supplied, please contact Building Solutions Pty Ltd

Roof Pitch / Slope: 5 deg to 35 deg

PANEL FIXING DETAIL
CLASS 4 WITH CYCLONE ASSEMBLY

PANEL THICKNESS	METAL TEK: 14-10 x Length, 14-14 x Length, 14-20 x Length	TIMBER TYPE 17: 14-10 x Length
	SCREW LENGTH (mm)	
125	175	175
140	175	175
175	230	240
200	230	240

Use 14-10 x Length Metal Teks for steel 2.0mm to 4.0mm
or 14-14 x Length Metal Teks for steel 2.0mm to 4.0mm
Use 14-20 x Length Metal Teks for steel 4.1mm to 6.5 mm

1. **Top Stitching Screws Positioned at 300mm c/c Type T17 12-11 x 25 with sealing washer**
2. **Bottom Stitching Screws Positioned at 300mm c/c Type T17 12-11 x 25 with no sealing washer**

Product name
RITEK CUSTOM ROOF PANEL

Product Description
INSULATED ROOF PANEL

Manufacturer's Name
BUILDING SOLUTIONS PTY LTD

Design Criteria

1. The span tables apply to buildings designed in accordance with:
   a) AS 4055 Section 1.2 geometric limits:
   - Max eave height 6.0m, roof height 8.5m
   - Max width (w) 16m, max length (l) 5 x width (w)
   - Roof pitch equal or less than 35deg; and

   b) AS 1170.2 h/d and h/b less than 1
2. Roof pressure coefficients:
   a) General Areas: Cpe = 1.5 x (-0.9) = **-1.35**; or
   b) Areas within 1.2 of roof edges: Cpe = 2.0 x (-0.9) = **-1.8**; and simultaneously other areas Cpe = **-0.9**
3. Maximum cantilever for all cyclonic areas is shown in the tables, maximum cantilever lengths cannot be exceeded. Choose a thicker panel to achieve the required cantilever. Minimum width of cantilevered roof is 1.5 x cantilever
4. Test factor kt = 1.21 in accordance with table B1 of AS1170.0

Limitations

Deflection Limits: The Ritek span tables have been provided with specific deflection limits indicated for Serviceability wind speeds. The building designer must take all necessary care to select an appropriate panel thickness for their specific situation, taking into account the amount of potential roof panel movement relative to any attached non-structural elements, such as internal wall partitions and window frames etc. The building designer must also make allowance for deflections which can exceed those in the tables when wind speeds are occasionally above the designated serviceability wind speed during extreme weather conditions.

Cantilever Deflections: Note that cantilever deflections will depend on the back span, rigidity of supports, building geometry and building permeability. Cantilever deflection can be up to (cantilever length) / 50 at serviceability wind speeds. The building designer must take all necessary care to select an appropriate panel thickness for their specific situation taking into account the amount of potential roof panel movement at the ends of and along the sides of cantilevered sections of the roof, relative to any adjacent attached flashings, downpipes, screen partitions and walls. The building designer must also make allowance for cantilever deflections which can exceed (cantilever length) / 50 when wind speeds occasionally exceed serviceability wind speeds during extreme weather conditions. Cantilever deflections due to self weight can be up to (cantilever length) / 500.

Accepted for Inclusion

DTCM ref: M/158/01

Chairman's Signature:

Chairman's Name: JOHN EHRLICH

Date of Approval: 18/8/2010 Expiry Date: 18/8/2013

New Expiry Date 18/8/15
Signature

Version 1.06

Notes covering basis of DTC (Relevant test reports etc)

1. Building Code of Australia (BCA) – Low-High-Low Pressure Testing
2. Design Criteria determined in accordance with AS/NZS1170.2 and AS 4055
3. Cyclonic Strength Wind Load LHL Testing of Ritek Custom Panels, Report No. TS728a July 2009 prepared by James Cook University Cyclone Testing Station
4. Tabulated values may be interpolated but not extrapolated

***Design Engineer's Certification**
Name: BARRY GEORGE
Registration Number: NPER 193922
Date: 2 JUNE 2010
Signature:
*registered as a structural engineer in Australia

****Certifying Engineer's Certification**
Name: Townes Chappell Mudgway Pty Ltd
NT Registration Number: 126 (ES
Date: 9 JULY 2010
Signature:
**registered as a structural engineer in Northern Territory