bondorpanel® EPS-FR

Technical Data Sheet

BON0126 Bondor Tech Data Sheets - BondorPanel v46
Current as of: 18/04/18

Product Description

BondorPanel® is a versatile and high performing insulated wall and ceiling panel used in controlled environments such as cold storage, food preparation areas and clean rooms, but extends its use to transportable offices, wall partitions and many other applications.

BAL40

Colorbond® Permagard®

Panel Properties							
Panel Thickness (mm)	50	75	100	125	150	200	250
Mass (kg/m²)	11.3	11.6	12.0	12.3	12.7	13.3	14.0
SL Grade Total R-value (m²K/W) @ 6˚C	1.5	2.1	2.8	3.4	4.1	5.4	6.7
SL Grade Total R-value (m²K/W) @ 15˚C	1.4	2.1	2.7	3.3	4.0	5.2	6.5

Note: The above Total R-values are for insulation average temperature of 6˚C and 15˚C. Contact us for other temperatures and different EPS core grades.

Span Table

NON-CYCLONIC REGION A&B (WALL APPLICATIONS ONLY)

SL Grade EPS-FR Core / 0.6mm Steel Skins.
Maximum uniformly distributed ultimate wind load (kPa) for the given span:

Single Span, wind pressure acting outwards							
Span (mm)	Panel Thickness (mm)						
	50	75	100	125	150	200	250
1500	3.39	5.09	6.79	8.48	10.18	13.58	16.97
2700	1.86	2.83	3.77	4.71	5.66	7.54	9.43
3900	0.95	1.57	2.09	2.62	3.14	4.19	5.24
5100	0.54	0.92	1.22	1.53	1.84	2.45	3.06
6300	0.33	0.60	0.80	1.00	1.20	1.60	2.01
7500	-	0.42	0.57	0.71	0.85	1.13	1.42
8700	-	0.30	0.42	0.53	0.63	0.84	1.05

Multi Span, wind pressure acting outwards							
Span (mm)	Panel Thickness (mm)						
	50	75	100	125	150	200	250
1500	2.72	4.07	5.43	6.79	8.15	9.92	9.92
2700	1.51	2.26	3.02	3.77	4.53	5.51	5.51
3900	1.04	1.57	2.09	2.61	3.13	3.82	3.82
5100	0.61	0.92	1.22	1.53	1.84	2.45	2.92
6300	0.40	0.60	0.80	1.00	1.20	1.60	2.01
7500	0.28	0.42	0.57	0.71	0.85	1.13	1.42
8700	-	0.32	0.42	0.53	0.63	0.84	1.05

*Refer notes 1-4.

Span Table Internal Cold Storage

SL Grade EPS-FR Core / 0.6mm Steel Skins. Maximum span (mm):

Single Span, internal cold storage 0˚C or more							
Span (mm)	Panel Thickness (mm)						
	50	75	100	125	150	200	250
Walls (Non-Load Bearing)	-	5700	7100	8300	9300	10800	12000
Walls (Load Bearing)	-	5100	6500	7500	8200	9500	10700
Ceilings	-	5100	6300	7200	7800	9000	9900

Multi-span, internal cold storage 0˚C or more							
Span (mm)	Panel Thickness (mm)						
	50	75	100	125	150	200	250
Walls (Non-Load Bearing)	-	6500	7500	8900	9100	10500	11700
Walls (Load Bearing)	-	6000	6900	7700	8400	9700	10900
Ceilings	-	5300	6000	6900	7500	8600	9600

*Refer notes 3-10.

Core	EPS-FR (Expanded Polystyrene with fire retardant)
Width (cover mm)	1200
Thickness (mm)	50, 75, 100, 125, 150, 200, 250
Length	Up to 16m (check for availability)
External Material	BlueScope Colorbond® Steel 0.6mm G300 CRP Grade
External Finishes	Plain, Ribbed, Satinline
Exterior Colour Options	Permagard® White or other standard & non-standard colours
Internal Material	BlueScope Colorbond® Steel 0.6mm G300 CRP Grade
Internal Finishes	Plain
Interior Colour Options	Permaguard® White
Paint System	AS/NZS 2728 & AS 1397
Accreditations	
Acoustic Properties	Rw 24 - 25 depending on thickness
Material Group Numbers	C1.10 Group 1 & 2
Bushfire Attack Level	BAL-40
Fire hazard properties	AS/NZS 1530.3
Ignitability Index	0
Spread of Flame Index	0
Heat Evolved Index	0
Smoke Index	2-3

AS/ISO 9705 - BCA Group Number (Spec C1.10)
BondorPanel® EPS-FR steel skinned insulated building panels conform to the requirements of the BCA Specification C1.10 as either Group 2 or Group 1 depending on the thickness and construction detail.
Group 1
Panel up to 250mm thick with steel 'wall-wall' and 'wall-ceiling' angles fixed with steel rivets or screws at maximum 300mm centres is classified as Group 1.
Group 2
Panel up to 150mm thick with aluminium 'wall-wall' and 'wall-ceiling' angles fixed with aluminium rivets or screws at 300mm centres is classified as Group 2. Panel thicker than 150mm requires steel 'wall-wall' and 'wall-ceiling' angles fixed with steel rivets or screws at 300mm centres to be classified as Group 2.

NOTES:
1. Extended span tables including cyclonic regions C&D and 300mm thick panel are also available. Refer Bondor®.
2. Fixing with min. 14g tek screws (x4 off) or mushroom head bolts (x2 off) per fixing point are required.
3. Pressures specified are for wind gusts only per AS/NZS 1170.2.
4. Deflection limit of span/150 applies, and in accordance with Serviceability Limit State criteria per AS/NZS 1170.0 - TABLE C1.
5. This span table applies for cold storage constructed wholly within a larger enclosed building. Pressure relief port is to be provided for a freezer in accordance with Bondor® recommendation.
6. Panel thicknesses of not less than 100mm are recommended for chillers, not less than 150mm for freezers and not less than 200mm for blast freezers, depending on structural considerations. Check 'R' value for insulation requirements.
7. Fixing with min. 14g tek screws (x4 off) per fixing point or mushroom head bolts (x1 off at end support and x2 off at intermediate supports) are required.
8. Self weight of the panel has been allowed for, plus an allowance of up to 10kg/m² for light duty fittings (lights, etc.). No other dead loads permitted.
9. Non-trafficable maintenance access (concentrated load) of 140kg on any one panel has been allowed for (exceeding min. requirements of AS/NZS 1170.1).
10. Distributed live load of 0.25kPa (as per AS/NZS 1170.1) has been allowed for. Bondor® tests comply with details outlined in AS 4040.0, AS 4040.1, AS 4040.2, AS 4040.3, AS 1562.1 and AS/NZS 1170.1.

bondorpanel®

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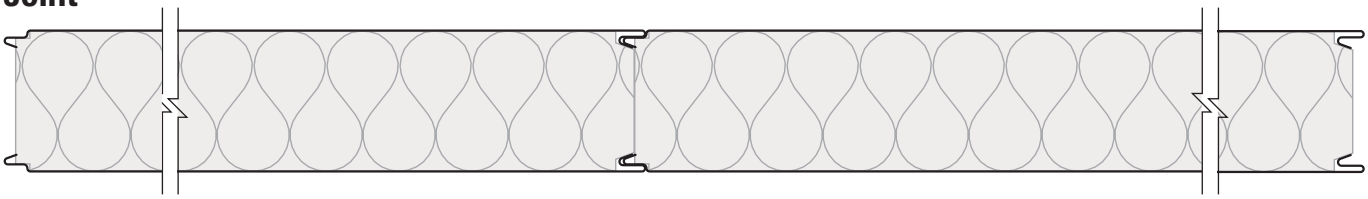
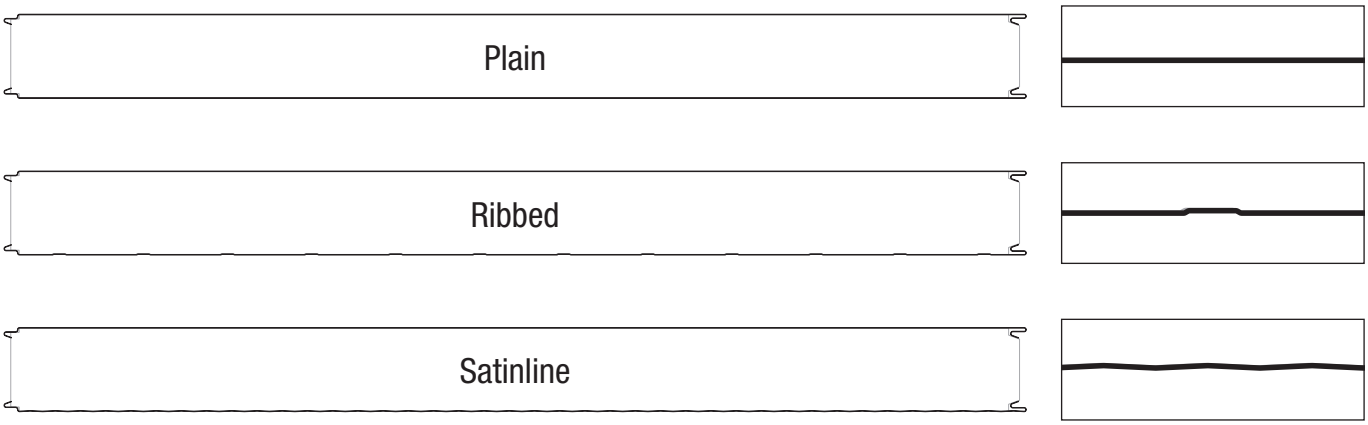
Joint



Profiles



Dimensions

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To connect to your nearest Bondor® branch simply call 1300 300 099 or visit www.bondor.com.au

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