ASKIN Performance Panels

INTERIORS
Internal Walls & Ceilings
XFLAM Panel

XFLAM

ASKIN XFLAM is a globally patented Australian made syntactic phenolic insulation which meets and exceeds all the performance requirements for rigid insulation.

XFLAM Panel is Group 1 material that meets the Factory Mutual requirements for internal, external, and roofing applications. XFLAM has achieved FM 4882 that certifies the panels for smoke sensitive occupancies, perfect for food processing, cold storage, clean and pharmaceutical buildings. XFLAM Panels meet and exceed all the requirements of the National Construction Code with NATA approved testing and approvals.

XFLAM Panel is a Factory Mutual (FM Approved) product meeting the rigorous international guidelines for natural hazards and fire compliance. XFLAM panel is a multilayered laminated product, which complies with AS5637 via group 1 performance in the ISO 9705 room test.

ASKIN XFLAM provides a group 1 performance, as a mechanically fixed installation which may include concealed fixing brackets. XFLAM Panel has achieved a variety of fire resistance levels (FRL's). refer FRL specification sheet for details.

Fire Performance

Criteria	Performance
AS 1530.3: 1999 (Test for Flammability of materials)	Flame Spread 0 Smoke Dev. 2 Heat Evolved 0 Ignition 0
AS 5637.1: 2015 Compliance to C1.10 AS ISO 9705: 2003 (R 2016)	Group 1, SMOGRA < 100 (m^2 / s^2 x 1000)
Factory Mutual (FM Global) Approval	FM 4880 - Unlimited Height FM 4881 - Exterior wall systems FM 4882 - Smoke Sensitive Occupancies
AS 1530.4: 2014	FRL Performance up to 120 minute's (Refer ASKIN FRL Systems)

Features & Benefits

- Moisture resistant
- 100% Recyclable
- Warranties up to 15 years +
- Fire rated and FM Approved
- Lengths up to 22m and is fast to install
- Resilient material for a changing climate
- Thermally efficient (Product R-Values up to 7.6)
- Suitable for temperature-controlled environments

*All information correct at time of printing. Check with your ASKIN representative for latest information.

13 000 ASKIN
contact@askin.net.au
askin.net.au

ASKIN Performance Panels

0.6mm External Face Skin with 0.6mm Internal Face Skin

Standard Steel Specification

Internal skin material - 0.6mm Thick G300S Z275 pre-painted Colorbond® Intramax® steel with superior polyester finish coat of 25 microns. Colorbond® Intramax® steel is specifically designed for temperature-controlled environments.

Panel Weight (m^2)

Panel Thickness (mm)	50	75	100	150	175	200	250
Weight (kg/m^2) for 0.6/0.6	11.6	12.5	13.3	14.2	15.0	16.7	18.4

*AS/NZS 2728 Paint Coating. AS 1397 Substrate System

Span table: ULS Allowable Pressure (kPa)

Panel	Panel Span (m)									
Thickness (mm)	2.0m	2.4m	3.0m	3.6m	4.0m	5.0m	5.5m	6.0m	7.0m	8.0m
50	2.83	2.44	1.85	1.27	0.88	0.71	0.63	0.55	0.39	0.22
75	4.03	3.55	2.82	2.14	1.68	1.35	1.18	1.02	0.69	0.35
85	4.51	3.99	3.21	2.48	2.00	1.60	1.40	1.20	0.81	0.41
100	5.23	4.65	3.79	3.01	2.48	1.98	1.73	1.48	0.98	0.48
125	-	-	-	3.33	2.82	2.20	1.90	1.64	1.13	0.62
150	-	-	-	3.65	3.15	2.42	2.06	1.79	1.27	0.75
175	-	-	-	3.98	3.48	2.64	2.22	1.95	1.41	0.88
200	-	-	-	4.30	3.81	2.86	2.38	2.10	1.56	1.01
250	-	-	-	4.95	4.48	3.29	2.70	2.41	1.84	1.27

Span table: SLS Allowable Pressure Applied Externally (kPa)

Panel	Panel Span (m)									
Thickness (mm)	2.0m	2.4m	3.0m	3.6m	4.0m	5.0m	5.5m	6.0m	7.0m	8.0m
50	1.83	1.58	1.21	0.84	0.59	0.47	0.41	0.34	0.22	0.09
75	2.27	2.05	1.73	1.41	1.20	0.96	0.85	0.73	0.49	0.26
85	2.44	2.24	1.94	1.64	1.44	1.16	1.02	0.88	0.60	0.32
100	2.70	2.52	2.25	1.98	1.80	1.46	1.29	1.11	0.77	0.42
125	-	-	-	2.07	1.89	1.54	1.36	1.20	0.87	0.55
150	-	-	-	2.16	1.98	1.61	1.43	1.28	0.98	0.67
175	-	-	-	2.25	2.07	1.69	1.50	1.36	1.08	0.80
200	-	-	-	2.33	2.16	1.77	1.57	1.44	1.18	0.92
250	-	-	-	2.51	2.34	1.93	1.72	1.61	1.39	1.18

Span table: ULS Allowable Pressure Applied Internally (kPa)

Panel	Panel Span (m)									
Thickness (mm)	2.0m	2.4m	3.0m	3.6m	4.0m	5.0m	5.5m	6.0m	7.0m	8.0m
50	-2.01	-1.76	-1.38	-0.99	-0.74	-0.62	-0.56	-0.51	-0.39	-0.27
75	-2.38	-2.15	-1.79	-1.43	-1.19	-1.00	-0.90	-0.80	-0.60	-0.41
85	-2.53	-2.30	-1.95	-1.61	-1.37	-1.14	-1.03	-0.92	-0.69	-0.46
100	-2.75	-2.53	-2.20	-1.87	-1.65	-1.37	-1.23	-1.09	-0.81	-0.54
125	-	-	-	-2.04	-1.81	-1.46	-1.29	-1.15	-0.87	-0.59
150	-	-	-	-2.20	-1.97	-1.56	-1.36	-1.21	-0.92	-0.63
175	-	-	-	-2.37	-2.13	-1.66	-1.42	-1.27	-0.98	-0.68
200	-	-	-	-2.54	-2.29	-1.75	-1.49	-1.34	-1.03	-0.73
250	-	-	-	-2.87	-2.61	-1.95	-1.62	-1.46	-1.14	-0.82

13 000 ASKIN
contact@askin.net.au
askin.net.au

Uniformly distributed ultimate limit state short term Wind load as derived from AS1170.2. Capacities derived from NATA approved structural testing in accordance with AS4040.2. Serviceability limit state deflection limited to span/150. Thermal deflection and required stress relief cuts should be considered for controlled environments by a suitably competent person. See ASKIN connection details for fire rated stress relief cuts.

Panel is assumed to be fixed from outside into a suitable structure inside. Fire rated walls and ceilings are non-load carrying and no permanent loads should be applied. Fixings, number and type should be considered by a suitably competent person. For FM approval requirements, please refer to specific test certificates available for download on our website. Loadings noted within span tables do not include the self-weight of the panel. Self weight will need to be applied when panel is used in a horizontal application (i.e. a roof or a ceiling).

Span table: Wind Classification (AS4055)

Panel	Panel Span (m)						
Thickness (mm)	2.0m	2.4m	3.0m	3.6m	4.0m	5.0m	6.0m
50	N2r	N1r	N1r	-	-	-	-
75	N3r	N2r	N2r	N1r	-	-	-
85	N3r	N3r	N2r	N1r	N1r	-	-
100	N3r	N3r	N2r	N2r	N1r	N1r	-
125	-	-	-	N2r	N2r	N1r	-
150	-	-	-	N2r	N2r	N1r	-
175	-	-	-	N3r	N2r	N2r	N1r
200	-	-	-	N3r	N2r	N2r	N1r
250	-	-	-	N3r	N3r	N2r	N1r

Notes:
Limited by strength at corners within 1200mm of both edges.
Wind Classifications for ultimate strength and serviceability pressures from the net pressure coefficients given in AS 4055 Tables 3.5(A) & 3.5(B).
Panels are installed over minimum 3-supports (double-span).

Colour Range

A full range of colours are available depending on Minimum Order Quantities and warranties. Site specific Solar absorbance as required by the NCC is available from ASKIN

Environment

Resource Efficiency

As a low-density insulation product XFLAM uses very little natural resources by volume to manufacture. This, coupled with the high insulation performance, mean that the lifetime energy savings from using XFLAM will amount to hundreds of times the energy required to produce the product.

Zero ODP

XFLAM foam insulation manufacturing does not use Ozone Depleting Substances such as CFCs, HCFCs or HFCs.

Haunches & Thermal Cuts

ASKIN has the ability to manufacture online haunches for wall to ceiling joints and thermal cuts for low temp rooms. The standard cuts range from 50mm to 225mm in multiples of 25mm and significantly assist onsite installation speed as well as the reduction of site waste. Custom cut lengths are available subject to request.

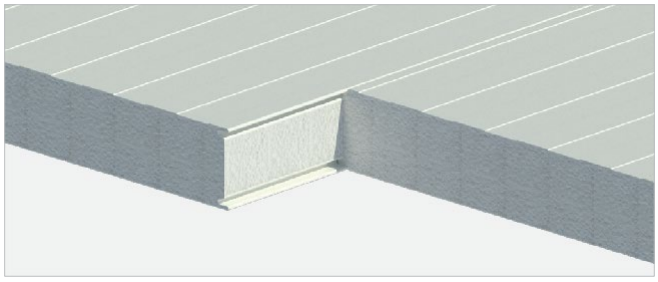
13 000 ASKIN
contact@askin.net.au
askin.net.au

Internal Wall Profile Combination

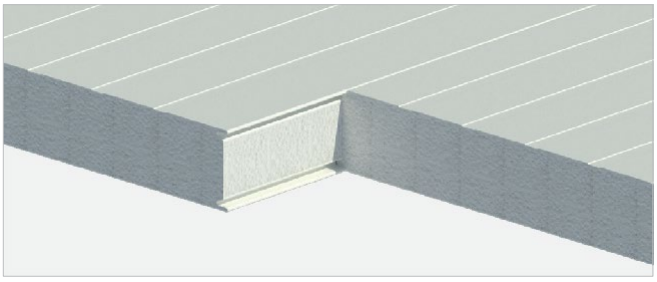
Internal Profiles

EPS Panel Mesa

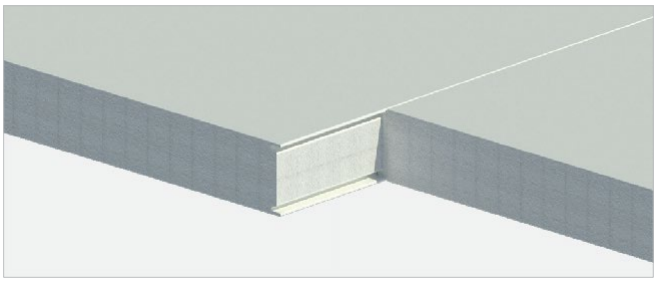
EPS Panel Flat, Shadowline, Australine



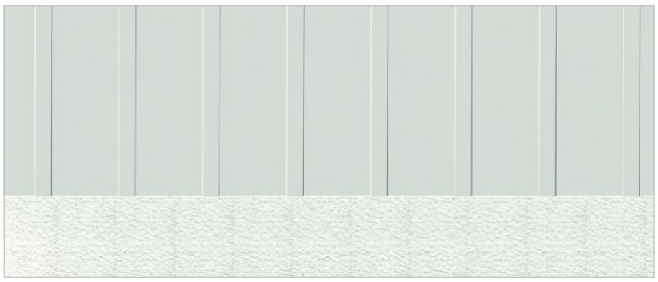
EPS Panel Mesa Joint



EPS Panel Rib Joint



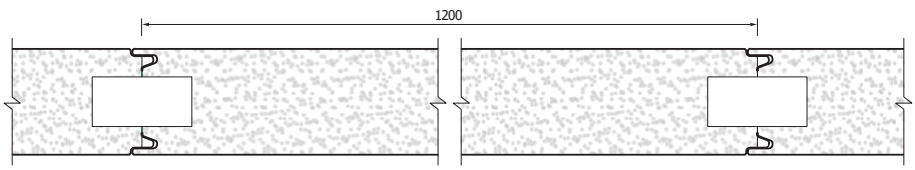
EPS Panel Flat Joint

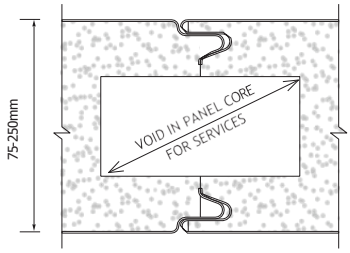


EPS Panel Rib

Services

ASKIN can produce in line services voids for special requirements.
Please contact your ASKIN representative for further information.





13 000 ASKIN
contact@askin.net.au

ASKIN Panel achieves the following ratings for panel tested in accordance with AS 1191-2002 and assessed against AS/NZS ISO 717.1:2004

Acoustics

Criteria	RW	RW + CTR
ASKIN XFLAM Panel 75mm	25	23

Physical Properties

Criteria	Performance
Core Density	36 +/- 4kg/m^3
Recyclable	100% Recyclable
Workability	Excellent. No requirement for protection

Manufacturing Tolerances

Criteria	Manufactured	Tolerance
Length	2,000mm to 22,000mm	+/- 5mm
Width	Standard as 1,200mm	+/- 1mm
Thicknesses	50mm to 250mm in multiples of 25mm	+/- 1mm

Though predominantly installed vertically, ASKIN Performance Panels can also be installed horizontally or diagonally for aesthetic or practical reasons.

Long panels or panels passing structural elements can be butt jointed with negative detail top hat sections. These can be supplied with fixing concealing caps. ASKIN Performance Panels can be fastened with a range of hardware available from ASKIN, including hidden fixings, Tek screws, mushroom head threaded rods, dome nut bolts, coach screws, suspension brackets and spring fixings. Please contact your ASKIN representative for more information.

Installation Tolerances

Panel Length	Installation Tolerance
0mm to 4,000mm	+2/ -1mm
+4,000mm	+3/ -1mm
Panel Joints	+2/ -2mm

*ASKIN recommend the use of clamps for ensuring minimum variable tolerance.

Thermal Performance

Product Material Properties					Total System R-Values	
Panel Nominal Thickness (mm)	Product U-Value (W/m^{2}K) at 23°C	Product R-Value (m^{2}K/W) at 23°C	Product R-Value (m^{2}K/W) at 15°C	Product R-Value (m^{2}K/W) at 0°C	Heat Flow Out (Winter)	Heat Flow In (Summer)
50	0.71	1.40	1.40	1.50	1.70	1.60
75	0.45	2.05	2.10	2.20	2.30	2.20
100	0.34	2.75	2.80	2.95	3.00	2.90
125	0.29	3.45	3.50	3.70	3.80	3.60
150	0.24	4.15	4.25	4.45	4.50	4.30
175	0.21	4.85	4.95	5.20	5.20	4.90
200	0.18	5.55	5.65	5.95	5.90	5.60
250	0.14	6.90	7.05	7.40	7.30	7.00
275	0.12	7.57	7.75	8.125	8.00	7.70

Total R-Values for the building element as required by the Energy Provisions of the National Construction Code, calculated in accordance with AS/ NZS 4859.2 2018. ASKIN XFLAM is manufactured, tested and packaged in conformance with AS/NZS 4859.1: 2018

13 000 ASKIN
contact@askin.net.au
askin.net.au