



PRODUCT SPECIFICATION SHEET

CORE: **XFLAM**

PROFILE: **METRIC**

XFLAM CORE

XFLAM is a cellular foam product which uses natural air filled cells to deliver exceptional thermal resistance. The use of natural air ensures absolute safety due to the complete absence of alternative types of gas for cell filling. This ensures the insulation performance of XFLAM remains constant from the day it is made to the end of its service life.

THERMAL PERFORMANCE

XFLAM Panel has the ability to resist transfer of heat making it significant to the thermal performance of a building envelope. The easy to seal slip-joint between panels facilitates efficient, hermetically sealed construction. This controls the air flow in and out of a building enabling efficient heating and cooling of the internal environment.

R-VALUES

PANEL THICKNESS (mm)	50	75	100	125	150	175	200	250
XFLAM R-Value (m ² K/W) at 15°Celsius	1.85	2.63	3.41	4.19	4.97	5.75	6.54	8.10

Metric Panel with Air Films (Zones 1-6, wind speed <7m/s)
NCC Specification J1.2-2, AS 2498.1: 1993

FIRE PERFORMANCE

XFLAM panel is a safe material in a fire situation with no flaming droplets, very low smoke release and virtually no hazardous NOx based compounds being released. XFLAM panel holds FM Approvals for Internal Walls and Ceilings, External Walls and Panel Roofs in addition to BCA Group 1 materials classifications. Additionally XFLAM Panel holds various ratings for fire resistant walls.

CRITERIA	PERFORMANCE
AS 1530.3: 1999 (Test for Flammability of materials)	Flame Spread 0 Smoke Dev. 2
Factory Mutual (FM Approved) Unlimited Height	FM 4471 - Roofing FM 4880 - Interiors FM 4881 - Exterior
ISO 9705 BCA Classification	Group 1, SMOGRA = 2.2 (m ² / s ² x 1000)
Toxicity (Combustion gases)	Very Low (CO, CO ₂)

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MINIMUM PITCH

Minimum pitch of 3 degrees. Refer to ASKIN roof standard details for best installation practice.

3 Degrees to 6 Degrees	- (Butyl tape required)	Standard cut back for gutter	- 75mm
6+ Degrees	- (No tape required)	Standard lap at joint	- 200mm

ACOUSTIC

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

PANEL THICKNESS	RW	RW + Ctr
ASKIN XFLAM Panel 75mm	25	23
ASKIN Dual Panel Roof - XFLAM 75mm / EPS 75mm	43	37

PHYSICAL PROPERTIES

CRITERIA	PERFORMANCE
Density	32 kg/m ³
Recyclable	100% Recyclable
Workability	Excellent. No requirement for protection
Trafficability (As per NCC / BCA)	Resistant to maintenance traffic (1 person per panel)
Peel Strength ASTM D1976 - Initial	1.27 N/mm

MANUFACTURING TOLERANCES

CRITERIA	MANUFACTURED	TOLERANCE
Length	2,000mm to 25,000mm	+/- 5mm
Width	Standard as 1,000mm	+/- 1mm
Thicknesses	50mm to 250mm in multiples of 25mm	+/- 1mm

COLOUR RANGE

A full choice of colours are available subject to Minimum Order Quantities (MOQ) and warranties. Please contact your ASKIN sales representative.

ENVIRONMENTAL

ZERO ODP

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

Low GWP

Pentane used in the initial stages of production has a low global warming potential and much of the pentane content is captured for use as fuel during the process resulting in an exceptionally low GWP.

Resource Efficiency

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

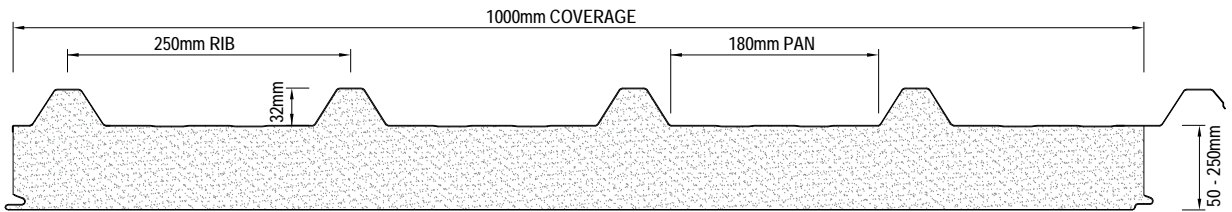
FEATURES & BENEFITS

- Fire Resistant and FM Approved
- Great Trafficability (140kg as per NCC/ BCA)
- Warranties up to 25 years
- All in one ceiling and roofing system
- Extremely thermally efficient (R Values up to 8+)
- Long lengths available up to 25m
- Low roof pitch down to 3°
- Cyclone Rated to 12 kPa
- Fast to install
- Superior spanning capability

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Metric Roof with Mesa / Flat Profile

METRIC PROFILE COMBINATIONS

EXTERNAL SURFACE PROFILES	FLAT	FLAT	MESA (50mm)	MESA (50mm)
INTERNAL SURFACE PROFILES	FLAT	RIB (100mm)	FLAT	RIB (100mm)

ASKIN™ Roofing

0.5mm EXTERNAL FACE SKIN WITH 0.4mm INTERNAL FACE SKIN

STEEL SKIN SPECIFICATION

AS/NZS 2728 Paint Coating

AS 1397 Substrate System

External Skin material – 0.5mm Thick G300S AM100 high performance steel with pre-painted superior polyester finish coat of 25 microns.

Internal Skin material – 0.4mm Thick G300S Z275 pre-painted off-white (Permagard®) steel with superior polyester finish coat of 25 microns and antibacterial protection.

Note: A range of substrates and colours without anti-bacterial protection are available, subject to application and MOQ.

PANEL WEIGHT

PANEL THICKNESS (mm)	50	75	100	125	150	175	200	225	250
Mass (kg / m ²) for 0.5 / 0.4	11.2	12.0	12.8	13.6	14.4	15.2	16.0	16.8	17.6

PANEL SPAN (m)

Allowable UDL accounting for ULS SLS Span/200 single or multiple span condition (kPa)

PANEL THICKNESS	2.0	2.4	3.0	3.6	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0
50mm	1.74	1.42	1.08	0.75	0.61	0.39	0.27	0.20	0.15	0.12	0.10	0.08	0.07
75mm	2.57	2.09	1.61	1.28	1.10	0.70	0.49	0.36	0.27	0.22	0.18	0.15	0.12
100mm	3.40	2.76	2.11	1.67	1.45	1.04	0.76	0.56	0.43	0.34	0.27	0.23	0.19
125mm	4.29	3.50	2.70	2.16	1.88	1.38	1.04	0.77	0.59	0.46	0.38	0.31	0.26
150mm	5.19	4.25	3.29	2.65	2.32	1.72	1.31	1.01	0.77	0.61	0.49	0.41	0.34
175mm	6.08	4.99	3.89	3.14	2.76	2.06	1.59	1.26	1.01	0.80	0.64	0.53	0.45
200mm	6.97	5.74	4.48	3.63	3.20	2.41	1.88	1.49	1.20	0.97	0.78	0.65	0.54
250mm	8.72	7.18	5.61	4.55	4.01	3.03	2.36	1.88	1.52	1.25	1.03	0.86	0.72

Span data generated in accordance with AS/NZS 1170: 2011
Based on 5% LPL 80% Confidence

- >0.87 kPa Minimum Exterior
- >0.5 Minimum Internal
- <0.5 kPa Special Design

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0.6mm EXTERNAL FACE SKIN WITH 0.6mm INTERNAL FACE SKIN

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Internal Skin material – 0.6mm Thick G300S Z275 pre-painted off-white (Permagard®) steel with superior polyester finish coat of 25 microns and antibacterial protection.

Note: A range of substrates and colours without anti-bacterial protection are available, subject to application and MOQ.

PANEL WEIGHT


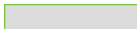
PANEL THICKNESS (mm)	50	75	100	125	150	175	200	225	250
Mass (kg / m ²) for 0.6 / 0.6	13.8	14.6	15.4	16.2	17.0	17.8	18.6	19.4	20.2

PANEL SPAN (m)

Allowable UDL accounting for ULS SLS Span/200 single or multiple span condition (kPa)

PANEL THICKNESS	2.0	2.4	3.0	3.6	4.0	5.0	6.0	7.0	8.0	9.0	10.0	11.0	12.0
50mm	1.76	1.44	1.13	0.91	0.80	0.52	0.36	0.27	0.20	0.16	0.13	0.11	0.09
75mm	2.61	2.13	1.65	1.33	1.16	0.86	0.65	0.48	0.37	0.29	0.23	0.19	0.16
100mm	3.45	2.82	2.18	1.75	1.52	1.12	0.85	0.66	0.52	0.42	0.34	0.27	0.23
125mm	4.34	3.56	2.77	2.24	1.96	1.46	1.13	0.89	0.71	0.57	0.47	0.39	0.32
150mm	5.24	4.31	3.37	2.73	2.40	1.81	1.41	1.12	0.90	0.74	0.61	0.51	0.43
175mm	6.13	5.05	3.96	3.22	2.85	2.16	1.70	1.36	1.11	0.91	0.76	0.64	0.54
200mm	7.03	5.80	4.56	3.72	3.29	2.51	1.98	1.60	1.31	1.09	0.91	0.77	0.65
250mm	8.82	7.29	5.75	4.71	4.18	3.22	2.57	2.09	1.73	1.45	1.23	1.05	0.90

Span data generated in accordance with AS/NZS 1170: 2011
Based on 5% LPL 80% Confidence

	>0.87 kPa Minimum Exterior
	>0.5 Minimum Internal
	<0.5 kPa Special Design

CYCLONE PERFORMANCE

PRESSURES / FIXING CENTRES	14g Tek Screws at 250 ctrs with buildex cyclone washers			
	6 kPa / 250	8kPa / 250	12 kPa / 250	Impact / m/s
75mm (Theoretical)	1.8	1.5	0.9	-
100mm (Certified)	2.4	2.0	1.2	40
150mm (Theoretical)	3.5	2.9	1.7	-

100mm Results certified by UA in accordance with NZ/AS 1170: 2011, AS 4040: 1992 and NCC L-H-L Testing
Other data generated from cyclic and static testing performed in other locations.

Disclaimer

Information provided here for design guidance only. Designers are encouraged to seek advice from a suitably qualified professional. All data is subject to change without notice.