

PRODUCT SPECIFICATION SHEET

CORE: XFLAM EXTERNAL WALLS AND FACADES

XFLAM CORE

XFLAM is a cellular foam product which uses natural air filled cells to deliver exceptional thermal resistance. The use of air enhances safety and security due to the absence of alternative types of gas for insulation. This ensures the thermal performance of XFLAM remains constant throughout its service life.

XFLAM External Wall systems have been tested for thermal performance, weatherproofing, fire, wind loadings and fire resistance levels (FRL).

R-VALUES

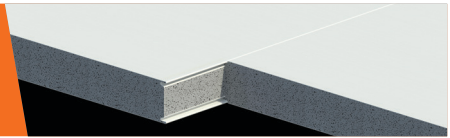
PANEL THICKNESS (mm)	50	75	100	125	150	175	200	250
XFLAM R-Value (m ² K/W) at 15°Celsius	1.72	2.50	3.30	4.10	4.84	5.63	6.41	7.97

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

FIRE PERFORMANCE

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 fire compliance. XFLAM is a multi-layered product thus needs to satisfy the ISO AS9705 2003 Room test as stipulated in AS5637. ASKIN XFLAM meets a Group 1 system as a mechanically fixed install including concealed bracket. The panel has achieved a number of Fire Resistance Levels (FRL).

CRITERIA	PERFORMANCE
AS 1530.3: 1993 (Test for Flammability of materials)	Flame Spread 0 Ignitability 0 Heat evolved 0 Smoke Dev. 1
C1.1 Fire Resisting Construction AS1530.4.	- / 120 / 30 (100mm Panel) - / 120 / 115 (250mm Panel) - / 90 / 60 (100mm Panel + 13mm Fyrchek Plasterboard)
Factory Mutual (FM Approved) Unlimited Height	FM 4471 - Roofing FM 4880 - Interiors FM 4881 - Exterior
Compliance to C1.10 - AS5637.1 AS ISO 9705:2003	Group 1, SMOGRA = 2.2 (m ² / s ² x 1000)
CP4 requires materials and assemblies to resist spread of fire and limit the generation of smoke and toxic gases during evacuation	Toxicity (Combustion gases) - Very Low (CO, CO ₂)
Compliant to FP1.4 and FP1.5 Weatherproofing	AS 4284 Water Ingress Test - Pass



THERMAL PERFORMANCE

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

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 System- XFLAM 75mm/ EPS 75mm	43	37

PHYSICAL PROPERTIES

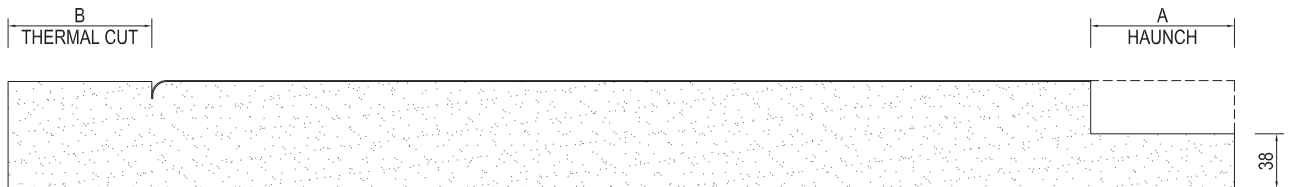
CRITERIA	PERFORMANCE
Density	32 kg/m3
Recyclable	100% Recyclable
Workability	Excellent. No requirement for protection
Peel Strength ASTM D1976 - Initial	1.27 N/mm

MANUFACTURING TOLERANCES

CRITERIA	MANUFACTURED	TOLERANCE
Length	1,500mm to 22,000mm	+/- 5mm
Width	Standard as 1,200mm	+/- 1mm
Thicknesses	50mm to 250mm in multiples of 25mm	+/- 1mm

HAUNCH AND THERMAL CUTS

ASKIN has the ability to manufacture on-line 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 on site installation speed as well as the reduction of site waste. Custom cut lengths are available subject to request.



COLOUR RANGE

A full range of colours are available depending on Minimum Order Quantities and warranties. Please contact your ASKIN representative as each project needs clarification on Solar Absorbance as stated in the NCC.

ENVIRONMENTAL

ZERO ODP

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

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 energy savings from using XFLAM will amount to hundreds of times the energy required to produce the product.

FEATURES & BENEFITS

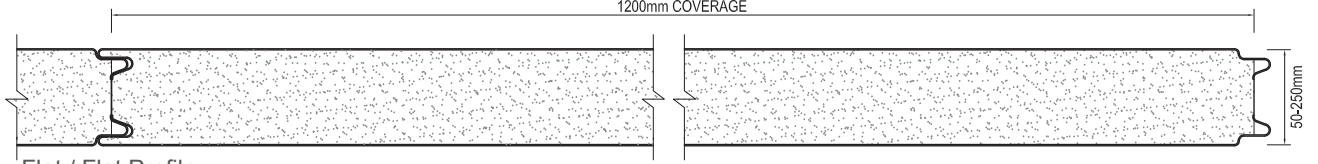
- Fire Rated and FM Approved
- Designer Range of Colours
- Warranties of 15+ years available
- Extremely thermally efficient (R Values up to 8+)
- Concealed Fix Systems available
- Long lengths available of 22m+
- Metallic and Printed Skins available
- Fast to install
- Superior spanning capability
- Cyclone Rated up to 15.8 kPa

Exteriors

ASKIN™

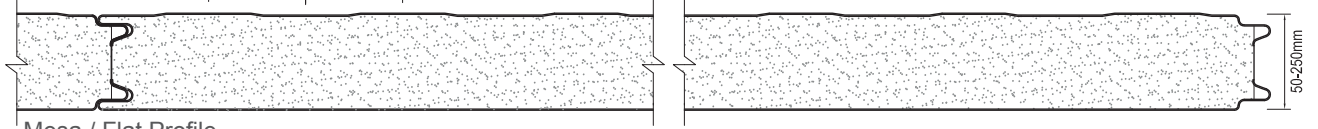


1200mm COVERAGE



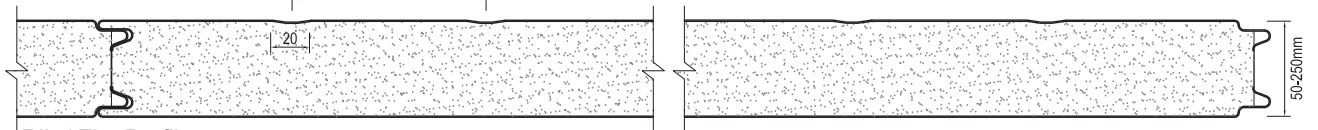
Flat / Flat Profile

50 50



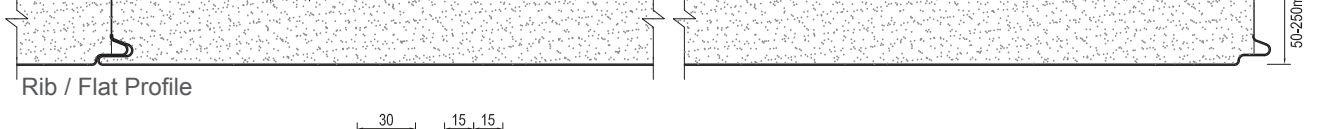
Mesa / Flat Profile

100



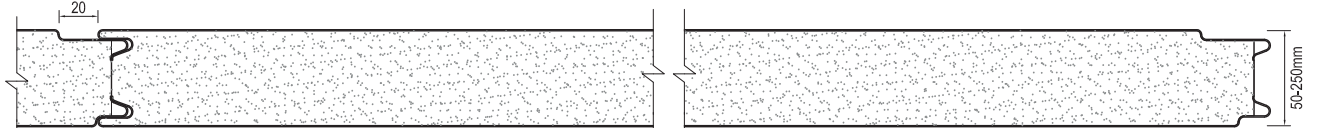
Rib / Flat Profile

20



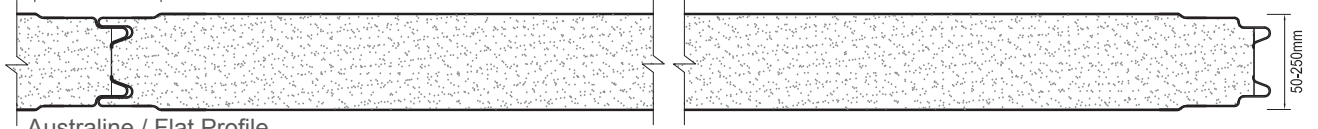
Silkline / Flat Profile

20



Shadowline / Flat Profile

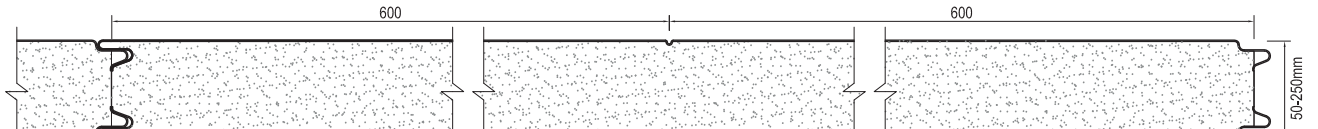
65



Australine / Flat Profile

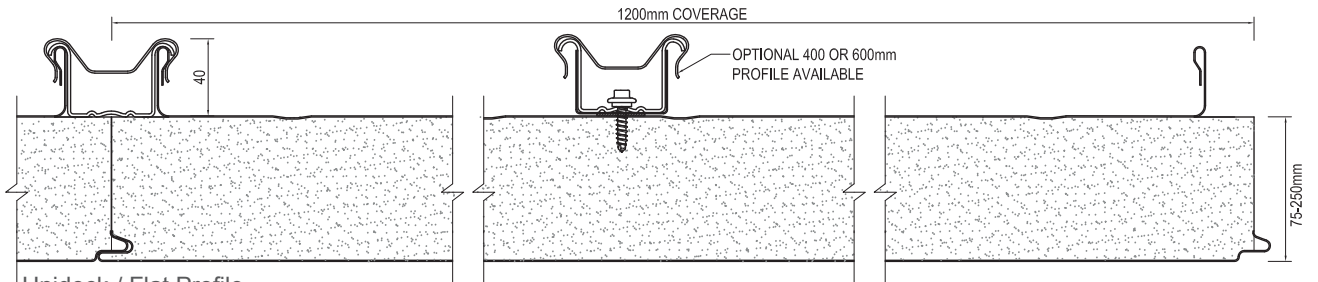
600

600



Express Joint / Flat Profile

1200mm COVERAGE

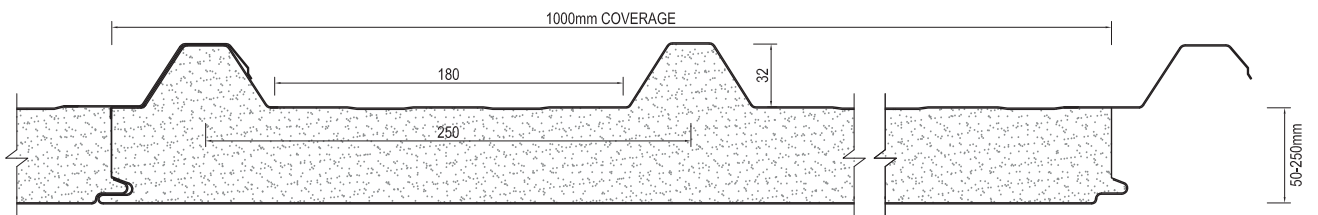


Unideck / Flat Profile

40

OPTIONAL 400 OR 600mm PROFILE AVAILABLE

1000mm COVERAGE



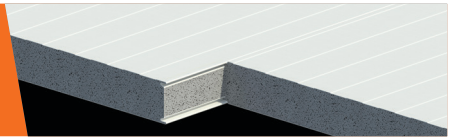
Metric / Flat Profile

180

32

250

50-250mm



INTERNAL WALL & CEILING PROFILE COMBINATIONS

		EXTERNAL SURFACE PROFILES										
		FLAT	MESA (50mm)	RIB (100mm)	Silkline	Shadowline	Australine	Express Joint	Unideck Flat	Unideck Rib	Unideck Silkline	Metric
INTERNAL SURFACE PROFILES	FLAT	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	MESA (50mm)	✓		✓								
	RIB (100mm)	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
	Silkline	✓		✓								
	Shadowline	✓										
	Australine	✓		✓			✓					
	Express Joint	✓		✓								

Note: Other profile combinations available dependant on application.

INSTALLATION NOTES

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.

0.5mm EXTERNAL FACE SKIN WITH 0.4mm INTERNAL FACE SKIN

STANDARD STEEL 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 (Permaguard®) steel with superior polyester finish coat of 25 microns and antibacterial protection.

PANEL WEIGHT

PANEL THICKNESS (mm)	50	75	100	125	150	175	200	225	250
Mass (kg / m ²) for 0.5 / 0.4	9.2	10.0	10.9	11.7	12.6	13.4	14.3	15.1	16.0

PANEL SPAN (m)

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

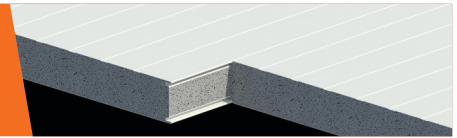
PANEL THICKNESS	2.0	2.4	3.0	3.6	4.0	5.0	6.0	7.0	8.0	9.0	10.0
50mm	2.45	1.70	1.09	0.76	0.61	0.39	0.27	0.20			
75mm	3.78	2.62	1.68	1.17	0.94	0.60	0.42	0.31	0.24	0.19	0.15
100mm	5.04	3.50	2.24	1.56	1.26	0.81	0.56	0.41	0.32	0.25	0.20
125mm	6.30	4.37	2.80	1.94	1.57	1.01	0.70	0.51	0.39	0.31	0.25
150mm	7.56	5.25	3.36	2.33	1.89	1.21	0.84	0.62	0.47	0.37	0.30
175mm	8.82	6.12	3.92	2.72	2.20	1.41	0.98	0.72	0.55	0.44	0.35
200mm	10.07	7.00	4.48	3.11	2.52	1.61	1.12	0.82	0.63	0.50	0.40
250mm	12.59	8.75	5.60	3.89	3.15	2.02	1.40	1.03	0.79	0.62	0.50

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

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

Exteriors

ASKIN™



0.6mm External Face Skin with 0.6mm Internal Face Skin

STANDARD STEEL SPECIFICATION

AS/NZS 2728 Paint Coating

AS 1397 Substrate System

External Skin material – 0.6mm Thick G300S AM100 high performance steel with pre-painted superior polyester finish coat of 25 microns.

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

PANEL WEIGHT



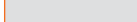
PANEL THICKNESS (mm)	50	75	100	125	150	175	200	225	250
Mass (kg / m ²) for 0.6 / 0.6	11.6	12.5	13.3	14.2	15.0	15.9	16.7	17.6	18.4

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	2.55	2.02	1.63	1.13	0.92	0.59	0.41	0.30	0.23	0.18	0.15	0.12	0.10
75mm	3.93	3.11	2.52	1.75	1.42	0.91	0.63	0.46	0.35	0.28	0.23	0.19	0.16
100mm	5.25	4.15	3.36	2.33	1.89	1.21	0.84	0.62	0.47	0.37	0.30	0.25	0.21
125mm	6.56	5.18	4.20	2.91	2.36	1.51	1.05	0.77	0.59	0.47	0.38	0.31	0.26
150mm	7.87	6.22	5.04	3.50	2.83	1.81	1.26	0.93	0.71	0.56	0.45	0.37	0.31
175mm	9.18	7.25	5.88	4.08	3.31	2.12	1.47	1.08	0.83	0.65	0.53	0.44	0.37
200mm	10.49	8.29	6.72	4.66	3.78	2.42	1.68	1.23	0.94	0.75	0.60	0.50	0.42
250mm	13.12	10.36	8.39	5.83	4.72	3.02	2.10	1.54	1.18	0.93	0.76	0.62	0.52

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	XFLAM FLAT PROFILE					XFLAM METRIC PROFILE			
	Concealed Fix / M10 Mushroom Head					14g Tek Screws at 250 ctrs with Buildex cyclone washers			
	6 kPa /1200	8kPa /600	12 kPa /600	15 kPa /400	Impact/ m/s	6 kPa /250	8kPa /250	12 kPa /250	Impact/ m/s
75mm (Theoretical)	1.6	1.4	0.8	-	-	1.8	1.5	0.9	-
100mm (Certified)	1.8	1.5	1.2	0.9	39	2.4	2.0	1.2	40
150mm (Theoretical)	2.2	1.8	1.4	-	-	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.