

Product Specification Sheet
Internal Walls & Ceilings

Panel



HARD FACTS

Project:
CSL Aurora

Architect:
Wood Group

Profile:
Flat

Skins:
Colorbond®
Intramax®

Volcore Core

ASKIN Volcore Panel is a non-combustible material under the provisions of the NCC 2019 C1.9 performance requirements. The Australian requirement for non-combustible internal walls for Construction Types A and B.

Volcore Panel is an architectural solution that meets performance requirements for structural strength, thermal performance, acoustic properties and fire performance for all building types and classes.

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	0.80	1.25	1.30	1.35	1.50	1.50
75	0.54	1.85	1.95	2.00	2.20	2.10
100	0.40	2.50	2.60	2.70	2.80	2.70
120	0.33	3.00	3.10	3.25	3.30	3.20
150	0.26	3.75	3.90	4.05	4.10	3.90
175	0.22	4.40	4.55	4.75	4.80	4.50
200*	0.20	5.00	5.20	5.40	5.40	5.30

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 Volcore is manufactured, tested and packaged in conformance with AS/NZS 4859.1 :2018

Declared Product R-Value is calculated in accordance with AS/NZS 4859.1:2018 as required for compliance to the National Construction Code 2019.

* 200mm Volcore thermal computation based on theoretical assumptions of AS 4859.1

Features & Benefits

- ▲ Non-combustible material (C1.9e)
- ▲ Lengths available up to 13.5m
- ▲ Standard Warranty of 10 years
- ▲ FM Approved
- ▲ Fast to install
- ▲ Up to -/240/210 FRL
- ▲ Resilient material for a changing climate
- ▲ Thermally efficient (Product R-Values up to 5.0(23 degrees))
- ▲ Suitable for temperature controlled environments

* All information correct at time of printing. Check with your ASKIN representative for latest information. Call 13 000 ASKIN, or email contact@askin.net.au © ASKIN October, 2022.



Volcore is a non-combustible insulation material tested to AS 1530.1 and ideal for commercial and industrial applications requiring type A & B construction.

Volcore Panel has achieved the high performance requirements of FM Approval for internal wall and ceiling systems.

Fire Performance

CRITERIA	PERFORMANCE
AS 1530.3: 1999 (Test for Flammability of materials)	Flame Spread 0 Smoke Dev. 1 Heat Evolved 0 Ignition 0
AS 5637.1: 2015 Compliance to C1.10 AS ISO 9705: 2003 (R 2016)	Group 1, SMOGRA = 1.5 (m ² / s ² x 1000)
NCC compliant C1.9 (e)	Non-Combustible
Factory Mutual (FM Global)	FM Approved 4880 (Unlimited Height), 4881
AS 1530.4: 2014	FRL Performance up to 210 minute's (Refer ASKIN Volcore Panel FRL Systems)

Acoustics

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

CRITERIA	RW	RW + CTR
ASKIN Volcore Panel 75mm	28	25
* ASKIN Volcore Panel 100mm	29	-
* ASKIN Volcore Panel 120mm	30	-
* ASKIN Volcore Panel 150mm	31	-

* Values from third party professional opinion report

Physical Properties

CRITERIA	PERFORMANCE
Core Density	110 kg/m ³ +/- 10%
Recyclable	100% Recyclable
Workability	Good – Mineral Fibres. Handle with care.

Manufacturing Tolerances

CRITERIA	MANUFACTURED	TOLERANCE
Length	2,000mm to 13,500mm	+5 / -0mm
Width	Standard as 1,000mm (1,200mm subject to MOQ)	+/- 1mm
Thicknesses	50mm up to maximum 200mm	+/- 1mm

ASKIN Volcore Panel interiors provides a clean and simple solution for construction of internal walls and ceilings that require high fire performance and non-combustibility. Volcore panel can be hermetically sealed to deliver air tightness and superior containment levels. 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.

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.

Environment

Resource Efficiency

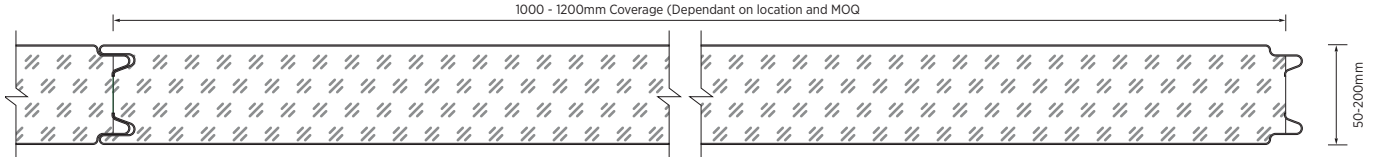
As an insulation product Volcore is efficient in its use of resources. Coupled with the high insulation, this means that the energy savings from using Volcore will amount to many times the energy required to produce the material.

Zero ODP

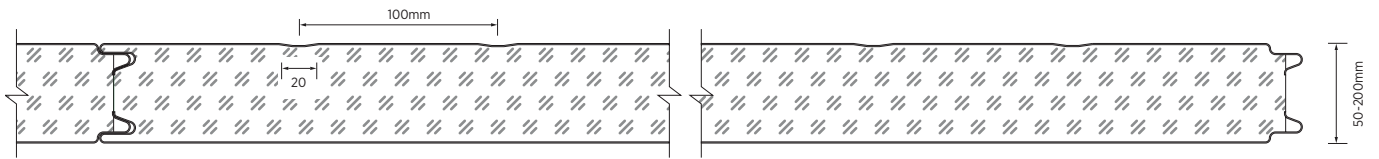
Volcore insulation manufacturing does not use Ozone Depleting Substances such as CFCs, HCFCs or HFCs.

Internal Wall & Ceiling Profile Combination

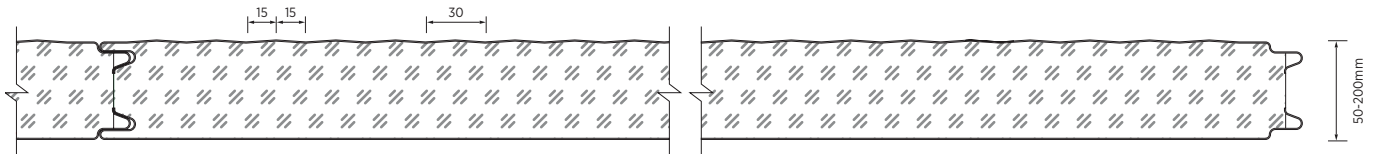
INTERNAL PROFILES



FLAT / Internal FLAT Profile



RIB / Internal FLAT Profile



SILKLINE / Internal FLAT Profile

Profile Options

External Surface Profiles	FLAT	FLAT	RIB (100mm)	RIB (100mm)	Silkline	Silkline
Internal Surface Profiles	FLAT	RIB (100mm)	FLAT	RIB (100mm)	FLAT	RIB (100mm)

Note: Other profile combinations available dependant on application.

0.6mm Internal Face Skin

Standard Steel Specification

PANEL 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 SKIN MATERIAL ALTERNATIVES – A range of substrates and colours are available subject to application and MOQ. Some of these include standard Colorbond® range, stainless steel 304 2b and ASKIN 200 Plus.

Panel Weight (m²)

PANEL THICKNESS (mm)	50	75	100	120	150
Weight (kg / m²) for 0.6 / 0.6	15.8	18.5	21.3	23.5	26.8

AS/NZS 2728 Paint Coating. AS 1397 Substrate System

Span Table: ULS Allowable Pressure (kPa)

PANEL THICKNESS (mm)	PANEL SPAN (m)							
	2.0m	2.4m	3.0m	3.6m	4.0m	5.0m	6.0m	7.2m
50	2.45	2.03	1.39	1.01	0.75	-	-	-
75	3.07	2.50	1.64	1.25	0.99	-	-	-
100	3.16	2.74	2.10	1.46	1.04	0.72	0.41	0.46*
120	3.84	3.32	2.53	1.75	1.23	0.87	0.52	-
150	4.86	4.19	3.19	2.18	1.51	1.10	0.69	-

* Result to be used only in a single span condition. No extrapolation/interpolation of this result can be calculated from other results within this table. Fixing condition for this result to be requested from ASKIN Engineering.

Span Table: SLS Allowable Pressure applied Externally (kPa)

PANEL THICKNESS (mm)	PANEL SPAN (m)							
	2.0m	2.4m	3.0m	3.6m	4.0m	5.0m	6.0m	7.2m
50	0.62	0.56	0.46	0.34	0.26	-	-	-
75	1.47	1.24	0.89	0.65	0.48	-	-	-
100	1.50	1.35	1.12	0.88	0.73	0.53	0.33	0.39*
120	1.55	1.40	1.17	0.94	0.78	0.56	0.34	-
150	1.63	1.48	1.25	1.02	0.87	0.61	0.36	-

* Result to be used only in a single span condition. No extrapolation/interpolation of this result can be calculated from other results within this table. Fixing condition for this result to be requested from ASKIN Engineering.

Span Table: SLS Allowable Pressure applied Internally (kPa)

PANEL THICKNESS (mm)	PANEL SPAN (m)							
	2.0m	2.4m	3.0m	3.6m	4.0m	5.0m	6.0m	7.2m
50	-0.80	-0.74	-0.65	-0.54	-0.47	-	-	-
75	-1.14	-1.02	-0.83	-0.72	-0.65	-	-	-
100	-1.23	-1.16	-1.04	-0.93	-0.86	-0.61	-0.36	-0.42*
120	-1.24	-1.17	-1.06	-0.95	-0.88	-0.69	-0.50	-
150	-1.25	-1.18	-1.08	-0.98	-0.91	-0.81	-0.71	-

* Result to be used only in a single span condition. No extrapolation/interpolation of this result can be calculated from other results within this table. Fixing condition for this result to be requested from ASKIN Engineering.

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. 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 into a suitable structure. 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). Volcore is not intended as a trafficable ceiling/work platform.