

ALUCOBOND® FR

ALUMINIUM COMPOSITE PANEL

Where flames fear to tread



Next & Beyond.
ALUCOBOND®

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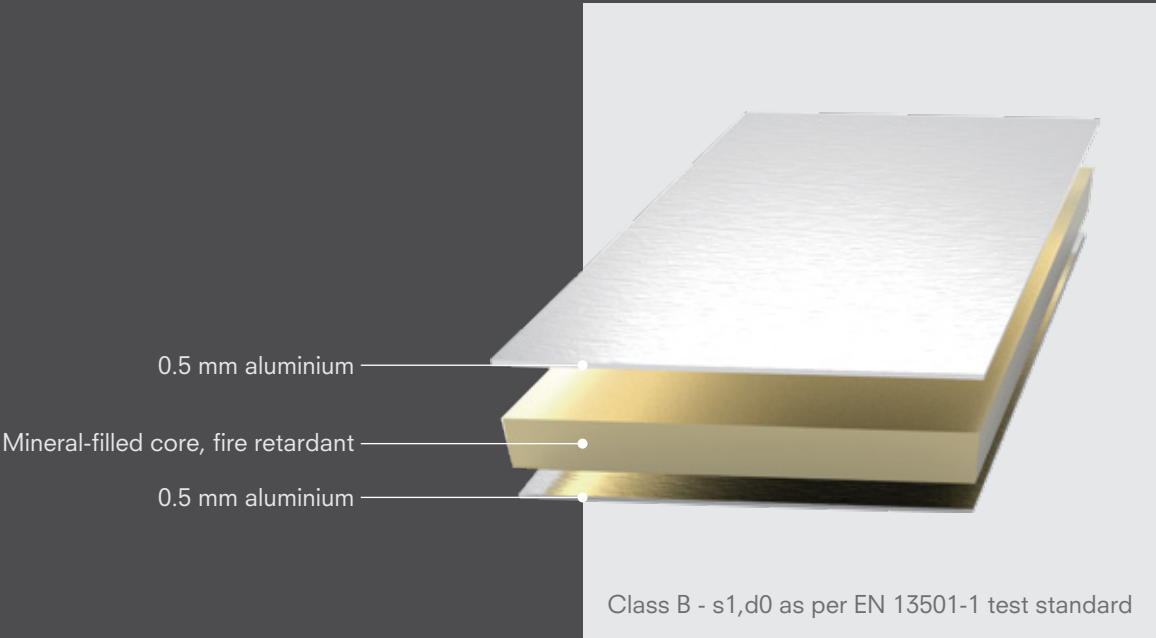


ALUCOBOND® FR

ALUCOBOND® FR (Fire Retardant) is a composite panel consisting of two aluminium cover sheets with a mineral-filled core that has been developed for safety in architecture.

ALUCOBOND® FR has properties such as surface flatness, formability, resistance to weather and simple processing.

The architects benefit from diverse processing options, enjoying design freedom as panels can be expertly folded into intricate multi-dimensional shapes with sharp and precise geometry using standard routing and folding techniques.



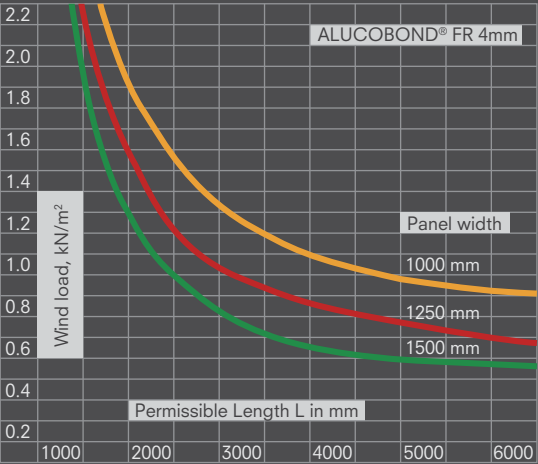
ALUCOBOND® FR Characteristics:

- Fire retardant
- Low weight, high rigidity
- Perfect flatness
- Large variety of colours
- Vibration-dampening
- Easy to fabricate

Product Range:

- Thickness: 3 mm, 4 mm
- Width: 1000 mm, 1250 mm, 1500 mm, 1575 mm
- Length: 2500 mm - 6999 mm
- Custom dimensions are available on request

Made to Measure Panels (M2M) and Ready to Install Panels (R2I) service available as a part of Value Added Services (VAS)



Wind load and permissible panel sizes

The graph for 4 mm thick ALUCOBOND® FR indicates the maximum permissible panel length ($\sigma = 51 \text{ N/mm}^2$) / ($\sigma = 53 \text{ N/mm}^2$) (without having to add a stiffener) based in applicable design wind load and panel width. Values apply to 4-side supported panels. Values for other systems on request.

TECHNICAL DATA

PROPERTIES	STANDARDS	UNIT	VALUES
Panel Thickness	Nominal	[mm]	4
Skin Thickness	Nominal	[mm]	0.50
Weight	Nominal	[kg/m²]	7.5

TECHNICAL PARAMETERS:

Section Modulus W	ASTM C 393	[cm³/m]	1.75
Rigidity (Poisson’s ratio $\mu = 0,3$) E-I	ASTM C 393	[kNcm²/m]	2400
Alloy	ASTM B 209-04		3003/3105
Temper of Al	ASTM B 209-04		H24
Modulus of Elasticity	ASTM E8	[N/mm²]	70,000
Tensile Strength of Aluminium	ASTM E8	[N/mm²]	$R_m \geq 125$
0.2% Proof Stress	ASTM E8	[N/mm²]	$R_{p0.2} \geq 90$
Elongation	ASTM E8	[%]	$A_{50} \geq 4$
Linear Thermal Expansion	ASTM D696		2.4 mm/m at 100°C temperature difference

CORE:

Core	Non-combustible mineral filled polymer
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SURFACE:

Surface			Coil Coating
Lacquering			Fluoropolymer based (PVDF/FEVE)
Gloss (initial value)	ASTM D 523	[%]	As per colour shade
Pencil Hardness	ASTM D 3363		HB – F

ACOUSTICAL PROPERTIES:

Sound Absorption Factor α_s	ASTM C 423		0.05
Sound Transmission R_w	ASTM E 90	[dB]	STC: 30

THERMAL PROPERTIES:

Thermal Resistance R	ASTM C 1363	[m²K/W]	0.003
Temperature Range		[°C]	-30 to +80

FIRE PROPERTIES :

Fire Classification	EN 13501-1		Class B - s1, d0
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ENVIRONMENT & HEALTH ASPECTS:

Environment Management System			CFC Free VOC Free ISO 14001:2015
Occupational Health and Safety Management System			ISO 45001:2018
Quality Management System			ISO 9001:2015

DIMENSIONAL TOLERANCES:

Panel Thickness		[mm]	4mm	± 0.2mm
Skin Thickness		[mm]	0.50	± 0.05 mm
Weight		[kg/m²]	7.5	± 5%
Width		[mm]	Upto 1500mm	+ 4mm
Length		[mm]	< 4000 mm Above 4000 mm	+ 6 mm +10 mm

*Specifications are subject to change without prior notice/intimation