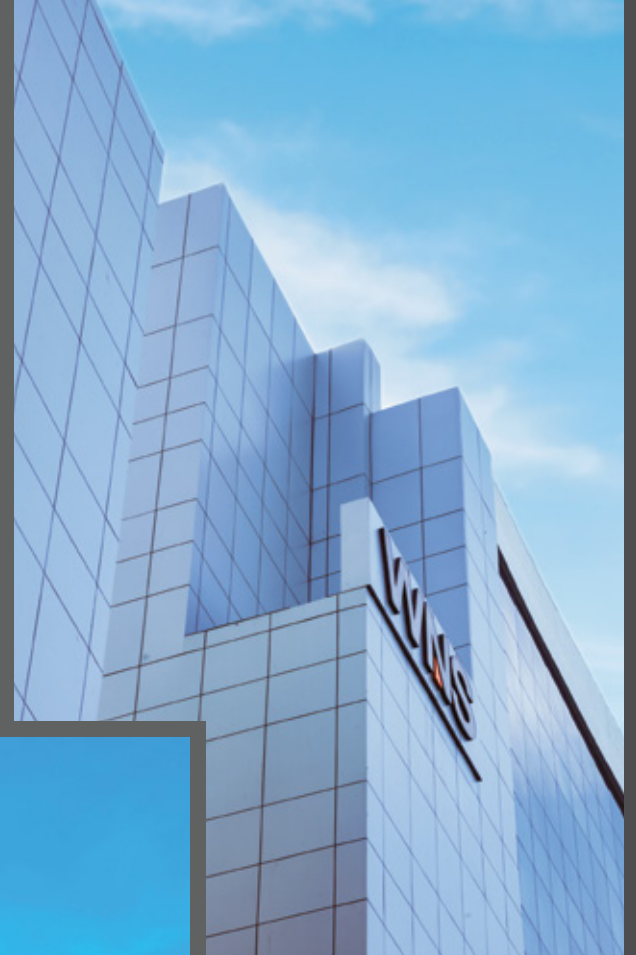


ALUCOBOND® FR

ALUMINIUM COMPOSITE PANEL

Where flames fear to tread

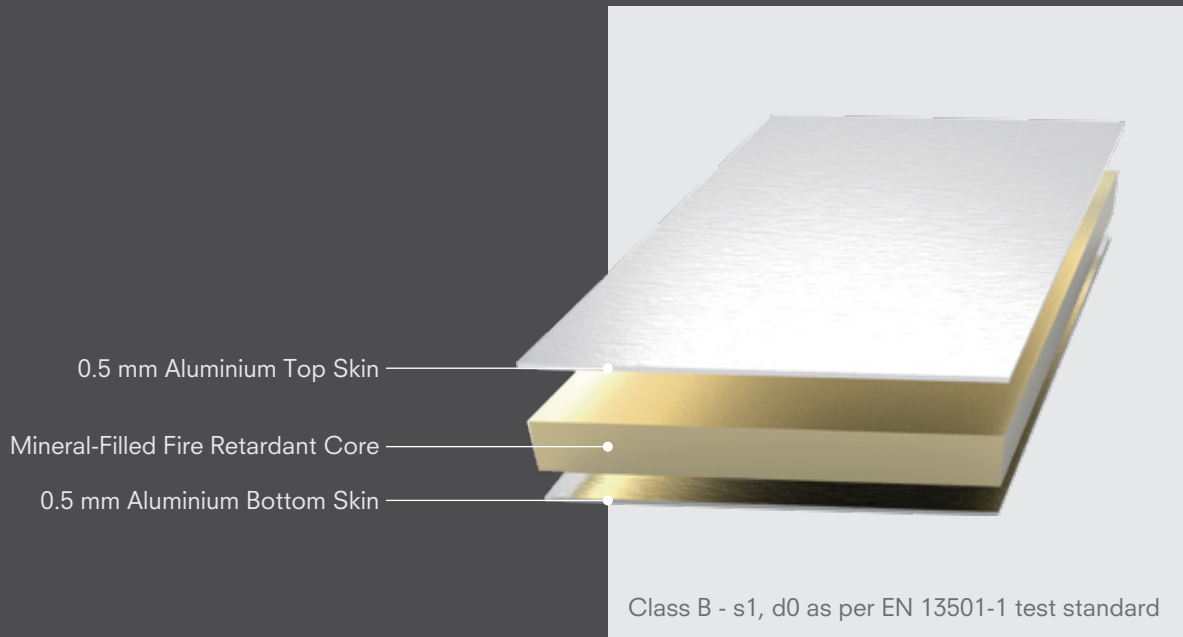


ALUCOBOND® FR

ALUCOBOND® FR (Fire Retardant) is an aluminium composite panel that provides a balanced solution of safety, durability, and affordability, particularly suited for architectural projects where managing costs is a key consideration. Comprising of two aluminium cover sheets with a mineral-filled fire retardant core, ALUCOBOND® FR is designed to offer essential fire protection without compromising on key features.

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

ALUCOBOND® FR can be used for commercial buildings, residential apartments, office buildings, etc.



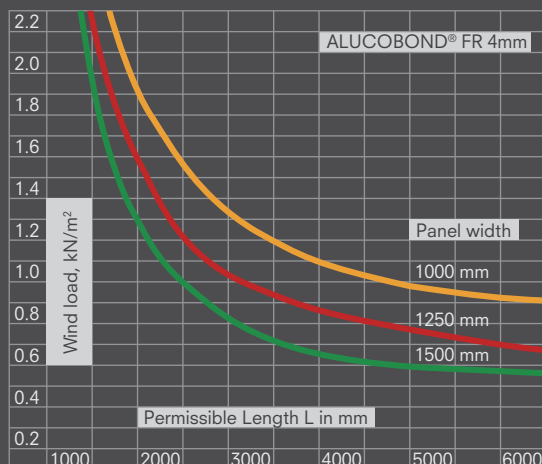
ALUCOBOND® FR Characteristics:

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

Product Range:

- Thickness: 3mm, 4mm
- Width: 1000mm, 1250mm, 1500mm, 1575mm
- Length: 2500mm - 6999mm
- 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 |
| Thickness of Coated Top Skin | Nominal | [mm] | 0.50 |
| Weight | Nominal | [kg/m ²] | 7.5 |
| TECHNICAL PARAMETERS: | | | |
| Section Modulus W | ASTM C393 | [cm ³ /m] | 1.75 |
| Rigidity (Poisson's ratio $\mu = 0.3$) E-I | ASTM C393 | [kNcm ² /m] | 2400 |
| Alloy Grade | ASTM B209-04 | | 3003 / 3105 |
| Temper of Aluminium | ASTM B209-04 | | H24 |
| Modulus of Elasticity | ASTM E8 | [N/mm ²] | 70,000 |
| Tensile Strength of Aluminium | ASTM E8 | [N/mm ²] | $R_m \geq 125$ |
| 0.2% Proof Stress | ASTM E8 | [N/mm ²] | $R_{p0.2} \geq 90$ |
| Elongation | ASTM E8 | [%] | $A_{50} \geq 4$ |
| Linear Thermal Expansion | ASTM D696 | | 2.4mm/m (at 100°C temperature difference) |
| CORE: | | | |
| Core | | | Mineral-filled fire retardant core |
| SURFACE: | | | |
| Lacquering | | | Coil Coating Fluoropolymer based (PVDF/FEVE) |
| Gloss (Initial Value) | ASTM D523 | [%] | As per the colour shade |
| Pencil Hardness | ASTM D3363 | | HB-F |
| ACOUSTICAL PROPERTIES: | | | |
| Sound Absorption Factor α_s | ASTM C423 | | 0.05 |
| Sound Transmission Loss R_w | ASTM E90 | [dB] | STC:30 |
| THERMAL PROPERTIES: | | | |
| Thermal Resistance R | ASTM C1363 | [m ² K/W] | 0.003 |
| Temperature Range | | [°C] | -30 to +80 |
| FIRE PROPERTIES: | | | |
| Fire Classification | EN 13501-1 | | Class B - s1, d0 |
| ENVIRONMENT & HEALTH ASPECTS: | | | |
| | | | CFC Free VOC Free |
| Environment Management System | | | ISO 14001:2015 |
| Occupational Health and Safety Management System | | | ISO 45001:2018 |
| Quality Management System | | | ISO 9001:2015 |
| DIMENSIONAL TOLERANCES: | | | |
| Panel Thickness | | [mm] | 4mm ± 0.2 mm |
| Thickness of Coated Top Skin | | [mm] | 0.50 ± 0.05 mm |
| Weight | | [kg/m ²] | 7.5 $\pm 5\%$ |
| Width | | [mm] | Upto 1500mm + 4mm |
| Length | | [mm] | < 4000mm + 6mm Above 4000mm +10mm |

*Specifications are subject to change without prior notice/intimation

Next & Beyond.
ALUCOBOND®

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