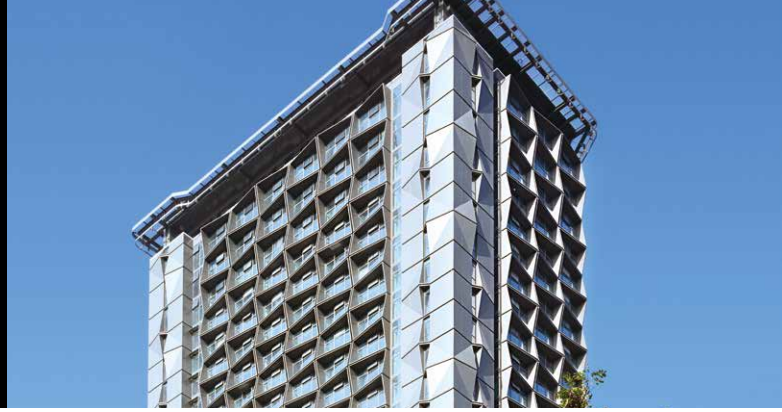
ALPOLIC™ A2

Aluminium composite panels
Technical data



ALPOLIC™ A2 aluminium composite panels consist of two 0.5mm thick aluminium cover sheets which are applied to a mineral core in a fusing process. They can be supplied up to a width of 2m.

The front is usually coated with LUMIFLON™ – based on a transparent fluoropolymer resin (FEVE) – or with DURAGLOSS® 5000. The production is carried out using the coil-coating process with modern technology. The composite panels are in accordance with the building regulations and the fire protection requirements tested to **EN 13501-1, class A2 - s1, d0**. They are therefore particularly suitable for all areas where a high level of fire protection is required. Due to the special product properties such as high flatness, facilitating processing and the ability to withstand UV radiation and corrosion, they offer various design possibilities for exterior and interior applications in futuristic building architecture.

Product features

- High flatness
- Strong rigidity
- Solid
- Withstand corrosion, weather, UV and graffiti
- Facilitates processing
- Fire protection class A2 - s1, d0
- Quality surface coating
- Consistent colour quality and consistency
- Wide variety of colours and designs
- In accordance with building authority standards
- Reusable
- EPD documented

Areas of application

ALPOLIC™ A2 aluminium composite panels are the ideal material for cladding high-rise buildings and high-risk buildings where the use of EN 13501-1, class A2-s1, d0 façade materials according to Euroclass A1 and A2 with low calorific value (PCS) is mandatory. They are also suitable for other areas of application: sophisticated design of ventilated rainscreen cladding façades system and decorate façade for both internal and external applications. The product is suitable for both new and refurbishment projects.

- rear-ventilated façades
- Façade and roof cladding
- Veneers
- Corporate Identity
- Interior architecture

Surface coating

The front of the ALPOLIC™ aluminium composite panel is usually colour-coated with LUMIFLON™ or DURAGLOSS® 5000. Both coatings guarantee high colour stability, provide reliable protection against the effects of weather, UV radiation, corrosion and acids. The coating is guaranteed for up to 20 years. LUMIFLON™ is a coating, based on a transparent fluoropolymer resin (FEVE). The reverse side of the composite panels is coated with a polyester-based coating to protect against corrosion.

Further technical details on LUMIFLON™ can be found in the corresponding data sheet, which you can download from the website: www.alpolic.eu

Colours and surfaces

The range comprises more than 200 colours and surface designs in various degrees of gloss (15 - 80%): solid colours, reAL Anodised, metallic, sparkling, prismatic and decors. The entire product range can be found in our website, where you can order samples and download colour charts and technical information.

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Specifications

Dimensions	Standard	Unit	Value	
Total thickness	–	mm	4 (± 0.2 mm)	
Cover sheet thickness	–	mm	0.5	
Core thickness	–	mm	3	
Width	–	mm	1,000/1,250/1,500/1,750/2,015 (± 2 mm)	
Length	–	mm	max. 7,300 (±1mm/m)	
Bow tolerance	–	mm	max. 0.5 % (5mm/m) of the length or width	
Squareness tolerance	–	mm	max. 5	
Technological Value				
Weight	–	kg/m²	8.4	
Tensile strength	DIN EN 1396	N/mm²	150	
0.2% proof stress	DIN EN 1396	N/mm²	130	
Elongation	DIN EN 1396	%	3	
Flexural elasticity, E	ASTM D393	kN/mm²	38.5	
Deflection temperature	ISO 75-2	°C	110	
Thermal expansion	ASTM D696	10^{-6}/°C	19	
Heat potential of the core	–	MJ/kg	< 3	
Surfaces				
Coil-Coating	–	–	LUMIFLON™ Fluorpolymer coating (FEVE)	DURAGLOSS® 5000 Polymer coating
Aluminium alloy	–	–	3105 H44 and 3005 H44	
Gloss (measured at 60°)	EN 13523-2	%	15 – 80	High gloss, silk matt, matt and MattExtreme
Pencil hardness	EN 13523-4	–	H	>HB
Resistance to rapid deformation	EN 13523-5	–	Rear impact deepening at 7.5Nm/mm: No cracks	
Resistance to immersion in water	EN 13523-9	–	After 500 hours: No influence	
Chalking resistance	EN 13523-14	–	Chalking out after 1,000 Q-UV test hours (= 500 hours UV-B): ≤ 10%	

International fire classifications

Country	Test standard ...	Results & Classification
EU (applicable in Europe, Switzerland and Turkey)	EN 13823, EN ISO 11925-2, EN 13501-1	Class A2 - s1, d0
Switzerland	VKF	RF 1
France	–	M 0
Great Britain	BS 476 Part 6 & 7, BS 8414-1, BS 8414-2	BR 135
Russia	GOST 30244-94 method II, SNIP 21-01-97, TsNIISK Natural fire test	Class G1 „Flame-retardant materials which do not burn without a source of fire".
USA	NFPA 285 (ISMA Test)	passed

Large fire testing

Country	Test & Certificate
France	LEPIR2, IT249 APL n° EFR-22-002172 & n° EFR-21-002195

Certifications and approvals

Country	Certifications and approvals
Germany	General Construction Approval, DIBt
Great Britain	BBA
France	Avis techniques
International	Environmental Product Declaration (EPD)

Test reports are available on request.

ALPOLIC™ – the world's first address for aluminium composite panels

Recycling
Our materials are 100% recyclable. Even waste from ALPOLIC™-plants is recycled.

Certifications

Trademark of AGC Chemicals, Asahi Glass Co., Ltd.

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