

Technical Data Sheet

Alucobond

Aluminium Composite Panel

Typical Properties

- Aluminium composite material with plastic (PE) core
- Low weight combined with high flexural rigidity
- Flat, even surface in many colours and gloss levels
- Weather- and UV-resistant PVDF coating
- Easily bent, folded and routed
- Normal flammability (building material class B-s2,d0 / B2)

Typical Industries

- Facade cladding
- Vehicle construction and vehicle graphics
- Advertising and signage technology
- Furniture manufacturing
- Exhibition and trade-show construction
- Interior fit-out

	Test Method	Unit	Value
Construction and General Properties			
Available thicknesses	Manufacturer's specification	mm	3 / 4 / 6
Areal weight (3 / 4 / 6 mm)	Manufacturer's specification	kg / m ²	4.5 / 5.5 / 7.3
Production width	Manufacturer's specification	mm	1000 / 1250 / 1500
Face sheet alloy			EN AW-5005A (AlMg1)
Face sheet thickness	Manufacturer's specification	mm	0.50 (each side)
Core material			Polyethylene (PE-LD), density 0.92 g / cm ³
Face sheet temper	EN 515		H22 / H42
Dimensional tolerance thickness / width	Manufacturer's specification	mm	±0.2 / -0/+4
Dimensional tolerance length (1000-4000 / 4001-8000 mm)	Manufacturer's specification	mm	-0/+6 / -0/+10
Mechanical Properties			
Section modulus W (3 / 4 / 6 mm)	DIN 53293	cm ³ / m	1.25 / 1.75 / 2.75
Flexural rigidity E·I (3 / 4 / 6 mm)	DIN 53293	kNcm ² / m	1250 / 2400 / 5900
Modulus of elasticity, aluminium face sheet	EN 1999-1-1	N / mm ²	70,000

	Test Method	Unit	Value
Tensile strength R _m (face sheet)	EN 485-2	N / mm ²	≥130
Yield strength R _{p0.2} (face sheet)	EN 485-2	N / mm ²	≥90
Elongation at break A ₅₀ (face sheet)	EN 485-2	%	≥5
Thermal Properties			
Thermal resistance R (3 / 4 / 6 mm)	DIN 52612	m ² K / W	0.007 / 0.0103 / 0.0172
Thermal conductivity λ (3 / 4 / 6 mm)	DIN 52612	W / (m·K)	0.43 / 0.39 / 0.35
U-value (3 / 4 / 6 mm)	DIN 52612	W / (m ² K)	5.65 / 5.54 / 5.34
Service temperature range	Manufacturer's specification	°C	-50 ... +80
Coefficient of linear expansion	EN 1999-1-1	mm / m	2.4 (at 100 K temperature difference)
Acoustic Properties			
Sound absorption coefficient α _s	ISO 354		0.05
Sound reduction index R _w	ISO 717-1	dB	25-27
Loss factor d	EN ISO 6721		0.0072-0.0138
Surface and Conformity			
Coating	Manufacturer's specification		Coil coating, fluoropolymer (PVDF)
Gloss level	Manufacturer's specification	%	30-80
Pencil hardness	EN 13523-4		HB-F
Reaction to fire (building material class)	EN 13501-1 / DIN 4102-1		B-s2,d0 / B2
Conformity	Manufacturer's specification		CE marking, RoHS and REACH compliant

The values stated are typical average values for aluminium composite panels with a PE core. They serve solely as information about our products and as an aid to material selection. They do not constitute a legally binding assurance of specific properties or of suitability for a particular purpose. As properties also depend on the dimensions of the semi-finished products and on manufacturing conditions, the actual property values of a specific product may deviate somewhat from the figures stated.