

ALUMATEX Aluminum Composite Material



Panel Specifications

Characteristics	Size	Tolerance
Length	Within 5m (standard length 2.44m, 2.5m, 3.05m)	-2 ~ +3mm
Width	Within 1.55m (Standard width 1.22m, 1.50m)	-1 ~ +2mm
Thickness	2mm, 3mm, 4mm	-0.2 ~ +0.2mm
Squareness	Diagonals equal within -3 ~ +3mm	-
Flatness	Maximum variation allowed is -2~ +2mm	-

Aluminum and Paint Specifications

Characteristics	Standard Index	Tolerance
Alloy/Temperature	AA1100, H18	-
Surface Pencil Hardness	2H	-
Paint	1 side or 2 sides - Polyester painting system	-
Flexibility	T	-
Pollutant Resistance	< 4.3%	-
Adhesive	Class 1	-
Aluminum Thickness	0.10mm, 0.20mm, 0.30mm	-0.02 ~ +0.02mm
Paint Film Thickness	16 μ m	-1 ~ +1 μ m

Physical and Chemical Specifications

	2	3	4	5	6
Panel thickness (mm)	2	3	4	5	6
Cover sheet thickness (mm)			0.2		
Weight (Kg/m ²)	2.6	3.55	4.5	5.45	6.4
Moment of inertia I (cm ⁴ /m)	0.049	0.123	0.231	0.364	0.548
Section of modulus W (cm ³ /m)	0.51	0.81	1.11	1.41	1.71
Rigidity E·J (kN cm ² /m)	345	864	1620	2675	3840
Alloy/condition of cover sheets			AA1100, H18		
Modulus of elasticity (N/mm ²)			70,000		
Tensile strength of cover sheets (N/mm ²)			Rm: 145 - 185		
Proof stress (0.2%) (N/mm ²)			Rp0.2: 110 - 175		
Breaking elongation			A50 > 3%		
Peel strength			4 N/mm		
Heat distortion temperature			102°C		

ALUMATEX Sheet



Bending strength	72 MPa				
Impact resistance	20kg·cm no de-painting, no crack				
Linear thermal expansion	2.0mm/m at 100°C difference in temperature				
Sound absorption factor (αs)	0.05				
Airborne sound in solution	24	24	25	25.5	26
Loss factor D	0.0048	0.0057	0.0072	0.0097	0.0102
Thermal resistance 1/λ (m ² K/W)	0.0047	0.0080	0.0113	0.0147	0.0180
Heat transition coefficient K (W/ m ² K)	5.72	5.61	5.50	5.40	5.30
Water absorption (%) DIN 53495	0.01				
Static charge	No antistatic treatment necessary				
Temperature resistance (°C)	-50~+80				
Standard size (WxL)					
1500*3050mm*0.2mm/0.3mm	√		√		
1500*4050mm*0.2mm/0.3mm	√		√		
1250*3050mm*0.2mm/0.3mm	√		√		
1220*2440mm*0.1mm/0.2mm/0.3mm	√		√		
Core					
Polyethylene LDPE (g/cm ³)	0.94				
Surface					
Painting	Polyester painting system				
12 standard colors	See color chart				
Temperature resistance	From -50°C to +80°C				
UV stability	Very good				

These suggestions and data are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use are beyond our control. We recommend that the prospective user determines the suitability of our materials and suggestions before adopting them on a commercial scale.