

ALUMINIUM COMPOSITE PANEL

Light



Aluminum Composite Panel

Panel Thickness	Standard	Unit	2mm	3mm	4mm	6mm
Thickness of Aluminium	DIN 1784	mm	0.3	0.3	0.3	0.3
Aluminum thickness deviation	DIN 1784	mm	±0.01	±0.01	±0.01	±0.01
Weight		Kg/m ²	2.92	3.85	4.76	6.75
Tolerance in length	DIN 16927 / ISO 11833-1	mm	- 0 / +2	- 0 / +2	- 0 / +2	- 0 / +2
Tolerance in width	DIN 16927 / ISO 11833-1	mm	- 0 / +1.5	- 0 / +1.5	- 0 / +1.5	- 0 / +1.5
Tolerance in thickness	DIN 16927 / ISO 11833-1	mm	± 0.15	± 0.10	± 0.10	± 0.15
Horizontal flatness	DIN ISO 1101	mm	6	5	4	4
Longitudinal roughness	DIN ISO 1101	mm	6	5	5	5
Technical Properties						
Section Modulus W	DIN 53293	cm ³ /m	1.01	1.25	1.75	2.75
Rigidity (Poisson's ratio $\mu = 0.3$) E.J	DIN 53293	kNm ² /m	0.67	0.14	0.28	0.63
Alloy	EN 573-3	ENAW	1100			
Temper of Cover Sheets	EN 515		H16/H18			
Modulus of Elasticity	EN 1999 1-1	N/mm ²	70,000			
Tensile Strength of Aluminium	EN 485-2	N/mm ²	$R_m \geq 145$			
0.2% Proof Stress	EN 485-2	N/mm ²	$R_{p0.2} \geq 100$			
Elongation	EN 485-2	%	$A_{50} \geq 2$			
Linear Thermal Expansion	EN 1999 1-1	mm/m°C	2.4 at 100°C Temp difference			
Core						
Polyethylene, Typ LD-PE		g/cm ³	0.935			
Surface			Coil Coating			
Lacquering			Fluorocarbon based (PE)			
Thickness of coating		µm	≥16	≥16	≥16	≥16
Gloss (initial value)	ECCA T2	%	20 - 100			
Pencil Hardness	ECCA T4		2H			
Acoustical Properties						
Sound Absorption Factor α_s	ISO 354		0.05			
Sound Transmission Loss R_w	ISO 717-1	DB	23	25	26	28
Loss Factor d	EN ISO 6721		0.0062	0.0072	0.0087	0.0138
Thermal Properties						
Thermal Resistance R	DIN 52612	m ² K/W	0.0036	0.0069	0.0103	0.0172
Heat Transition Coefficient U	DIN 4108	W/m ² K	5.98	5.65	5.54	5.34
Temperature Range		°C	-50...+80			

