

Technical data aluminium composite panel

			DIGITAL PRINTING & SIGNAGE PANELS			
PANEL THICKNESS	STANDARD	UNIT	2MM	3MM	4MM	6MM
Thickness of Aluminium	DIN 1784	mm	0,25	0,25	0,25	0,25
Aluminum thickness deviation	DIN 1784	mm	±0.02	±0.02	±0.02	±0.02
Weight		Kg/m ²	3,25	4,40	5,58	7,9
Tolerance in length	DIN 16927 / ISO 11833-1	mm	+/- 2	+/- 2	+/- 2	+/- 2
Tolerance in width	DIN 16927 / ISO 11833-1	mm	+/- 2	+/- 2	+/- 2	+/- 2
Tolerance in thickness	DIN 16927 / ISO 11833-1	mm	± 0.10	± 0.10	± 0.10	± 0.10
Diviation of Diagonals	DIN 16927 / ISO 11833-2	mm	+/- 3	+/- 3	+/- 3	+/- 3
TECHNICAL PROPERTIES						
Section Modulus W	DIN 53293	cm ³ /m	0,62	0,81	1,11	1,71
Rigidity (Poisson's ratio $\mu = 0.3$) E.J	DIN 53293	kNcm ² /m	555	865	1620	3840
Alloy/ Temper Available			1100 H16/H18 or 3003 H22/H24 or 5005 H44			
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			A Grade PE			
Polyethylene, Type LDPE		g/cm ³	0.93 to 0.96			
Surface			3 Roller Coil Coating (Polyester XT)			
Coating			Polyester (PPG Trueform/ Valspar/ Beckers)			
Thickness of coating		µm	≥18 to 21			
Surface Tension (Dyne Pen Testing)			≥ 42			
Gloss (initial value)	ECCA T2	%	20% - 95%			
Pencil Hardness	ECCA T4		H			
Acoustical Properties						
Sound Absorption Factor α_s	ISO 354		0,05			
Sound Transmission Loss RW	ISO 717-1	DB	21	24	25	26
Loss Factor α	EN ISO 6721		0,0056	0,0072	0,0087	0,0138
Thermal Properties						
Thermal Resistance R	DIN 52612	m ² K/W	0,0043	0,0069	0,0103	0,0172
Heat Transition Coefficient U	DIN 4108	W/m ² K	5,23	5,65	5,54	5,34
Temperature Range		°C	-50 to +80 Deg C			
Color Variation Tolerance	Polyester Mettallic Colors	ΔE	$\Delta E \leq 1.5$			
	Polyester Solid Colors	ΔE	$\Delta E \leq 2.0$			