

# iBOND® ( Digital )

## 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 <sup>2</sup>	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 / +1.0	- 0 / +1.0	- 0 / +1.0	- 0 / +1.0
Tolerance in thickness	DIN 16927 / ISO 11833-1	mm	± 0.15	± 0.10	± 0.10	± 0.15
Horizontal flatness	DIN ISO 1101	mm	5	3	3	3
Longitudinal roughness	DIN ISO 1101	mm	6	5	5	5
Technical Properties						
Section Modulus W	DIN 53293	cm <sup>3</sup> /m	1.32	1.55	1.85	2.96
Rigidity (Poisson's ratio $\mu = 0.3$ ) E.J	DIN 53293	kNm <sup>2</sup> /m	0.97	0.16	0.34	0.86
Alloy	EN 573-3	ENAW	3003			
Temper of Cover Sheets	EN 515		H16/H24			
Modulus of Elasticity	EN 1999 1-1	N/mm <sup>2</sup>	70,000			
Tensile Strength of Aluminium	EN 485-2	N/mm <sup>2</sup>	$R_m \geq 175$			
0.2% Proof Stress	EN 485-2	N/mm <sup>2</sup>	$R_{p0.2} \geq 120$			
Elongation	EN 485-2	%	$A_{50} \geq 3$			
Linear Thermal Expansion	EN 1999 1-1	mm/m°C	2.4 at 100°C Temp difference			
Core						
Polyethylene, Typ LD-PE		g/cm <sup>3</sup>	0.935			
Surface			Coil Coating			
Lacquering			Fluorocarbon based (PE)			
Thickness of coating		$\mu\text{m}$	$\geq 19$	$\geq 19$	$\geq 19$	$\geq 19$
Gloss (initial value)	ECCA T2	%	20 - 100			
Pencil Hardness	ECCA T4		2H			
Acoustical Properties						
Sound Absorption Factor $\alpha_s$	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 <sup>2</sup> K/W	0.0036	0.0069	0.0103	0.0172
Heat Transition Coefficient U	DIN 4108	W/m <sup>2</sup> K	5.98	5.65	5.54	5.34
Temperature Range		°C	-50...+80			

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