

Dotmar iBOND

Aluminium Composite Panel

Brushed panel is made by special processing on the original aluminium base. This technique does not only exhibit the unique natural essential colour of the aluminium surface, but also gives a classical touch to the product. Mirror-faced panel is made by anodic oxidation of the aluminium surface to make the product surface as bright as a mirror. It's safer in application and easier to be processed into various shapes than glass materials are.

Key Benefits:

- Base material of aluminium panel: High strength aluminium coils
- PE core: Non-toxic low density polyethylene
- Surface coating: Special coating

Applications:

- The dual colour aluminium composite panel is more applicable in interior & exterior decorations and commercial image shows.

Delivery Program:

Thickness: 3mm to 6mm
 Width: 1000-2000mm;
 1220mm, 1250mm & 1500mm are recommended
 Length: Max is up to 5800mm, 2440mm,
 3050mm & 4050mm are recommended.

Thickness of aluminium sheet: 0.3 - 0.5mm

Panel Thickness	Standard	Unit	2mm	3mm	4mm	6mm
Thickness of Aluminium	DIN 1784	mm	0.3	0.3	0.3	0.3
Aluminium 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 / ISO11833-1	mm	-0 / +2	-0 / +2	-0 / +2	-0 / +2
Tolerance in Width	DIN 16927 / ISO11833-1	mm	-0 / +1.5	-0 / +1.5	-0 / +1.5	-0 / +1.5
Tolerance in Thickness	DIN 16927 / ISO11833-1	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 19991-1	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	534
Temperature Range		°C	-50...+80			

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