

ALUMINIUM COMPOSITE MATERIALS - ACM



I-BOND is a high-strength, aluminium composite material comprising of two aluminium sheets, sandwiching a non-toxic, low density polyethylene core. The aluminium sheets has a durable polyester surface coating. I-BOND ACM is lightweight, strong, easy to process, extremely rigid and durable with excellent weathering resistance.

The superior polyester coating and ultra flat surface of I-BOND sheets make it an ideal substrate for flatbed digital printing. Suitable for indoor and outdoor commercial or industrial applications, I-BOND offers limitless potential for creative design.

APPLICATIONS INCLUDE:

Interior, Exterior or Shop Window Signage, Advertising Boards, Lightboxes, POP/POS Displays, Cut-out Lettering, Exhibition Stands, Showrooms, Kiosks, Partitions, Ceiling Panels, Wall Cladding, Digital Printed Panels etc.

DELIVERY PROGRAMME:

- Sheet size: 3050 x 1500mm

PLEASE NOTE:

Polyester paint coatings are used for Sign/Display applications. For CID & Architecture PVDF paint coatings are available on request. PVDF coated ACM is not suitable for all types of vinyl applications and printing technologies. We recommend that you perform a test to assess product suitability. Please enquire at your nearest Maizey branch.

COLOUR VARIANCE MAY OCCUR BETWEEN BATCHES. USE SAME BATCH NUMBERS FOR ADJACENT INSTALLATIONS.

I-BOND



NATIONAL DISTRIBUTION ☎ 086 1100 420

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TECHNICAL INFORMATION I-BOND

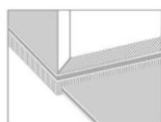
			ADVERTISING	ADVERTISING PVDF	DIGITAL PRINTABLE
Panel Thickness	Standard	Unit	3mm		
Thickness of Aluminium	DIN 1784	mm	0.21	0.5 / 0.21	0.15 / 0.21
Aluminium thickness deviation	DIN 1784	mm	±0.01		
Weight		Kg/m²	3.54	4.65	3.31
Tolerance in length	DIN 16927 / ISO 11833-1	mm	-0/+2	-1/+3	-0/+2
Tolerance in width	DIN 16927 / ISO 11833-1	mm	-0/+1.5	-1/+1.5	-0/+1.5
Tolerance in thickness	DIN 16927 / ISO 11833-1	mm	±0.10	±0.15	±0.10
Horizontal flatness	DIN ISO 1101	mm	4	6	4
Longitudinal roughness	DIN ISO 1101	mm	6	7	6
TECHNICAL PROPERTIES					
Section Modulus W	DIN 53293	cm²/m	1.68	1.25	1.73
Rigidity (Poisson's ratio) E.I	DIN 53293	kNm²/m	0.08	0.14	0.06
Alloy	EN 573-3	EN AW	1100		
Temper of Cover Sheets	EN 515		H16/H18		
Modulus of Elasticity	EN 1999 1-1	N/mm²	70000		
Tensile Strength of Aluminium	EN458-2	N/mm²	Rm ≥ 145		
0.2% Proof Stress	EN458-2	N/mm²	Rp0.2 ≥ 90	Rp0.2 ≥ 120	Rp0.2 ≥ 90
Elongation	EN458-2	%	A50 ≥ 3	A50 ≥ 2	A50 ≥ 3
Linear Thermal Expansion	EN 1999 1-1	mm/m/°C	2.4 at 100°C Temp difference		
CORE					
Polyethylene, Typ LD-PE		g/cm³	0.935		
Surface			Coil Coating		
Lacquering			PE2	PVDF	PE DIGITAL
Thickness of coating			≥16		
Gloss (initial value)	ECCA T2	%	20-100		
Pencil Hardness	ECCA T4		2H		
ACOUSTICAL PROPERTIES					
Sound Absorption Factor	ISO 354		0.05		
Sound Transmission Loss	ISO 717-1	DB	25		
Loss Factor d	EN ISO 6721		0.0072		
THERMAL PROPERTIES					
Thermal resistance R	DIN 52612	m²K/W	0.0069		
Heat Transition Coefficient U	DIN 4108	W/m²K	5.65		
Temperature Range		°C	50 ~ +80		
Outdoor Lifespan			5 years	5 years	1 - 2 years

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PROCESSING



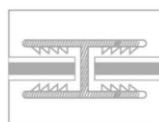
Spray Painting



Cutting



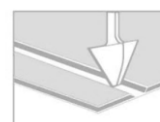
Hot Air Welding



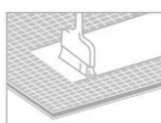
Fastened Installation



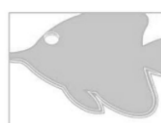
Flatbed Digital Printing



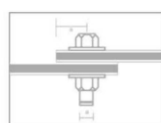
Slotting



Silk-screen



Contour Cutting



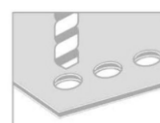
Clamping & Bolting



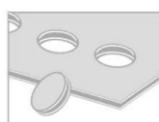
Gluing



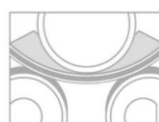
Sawing



Drilling



Punching



Roll bending

For detailed processing guidelines please feel free to download our **I-BOND Processing Guide** from the Maizey Plastics website at: <http://www.maizey.co.za/product/i-bond/>

Note: Fabrication not recommended for I-Bond <0.3mm Aluminium skin thickness