

## Product Information



For people with ideas

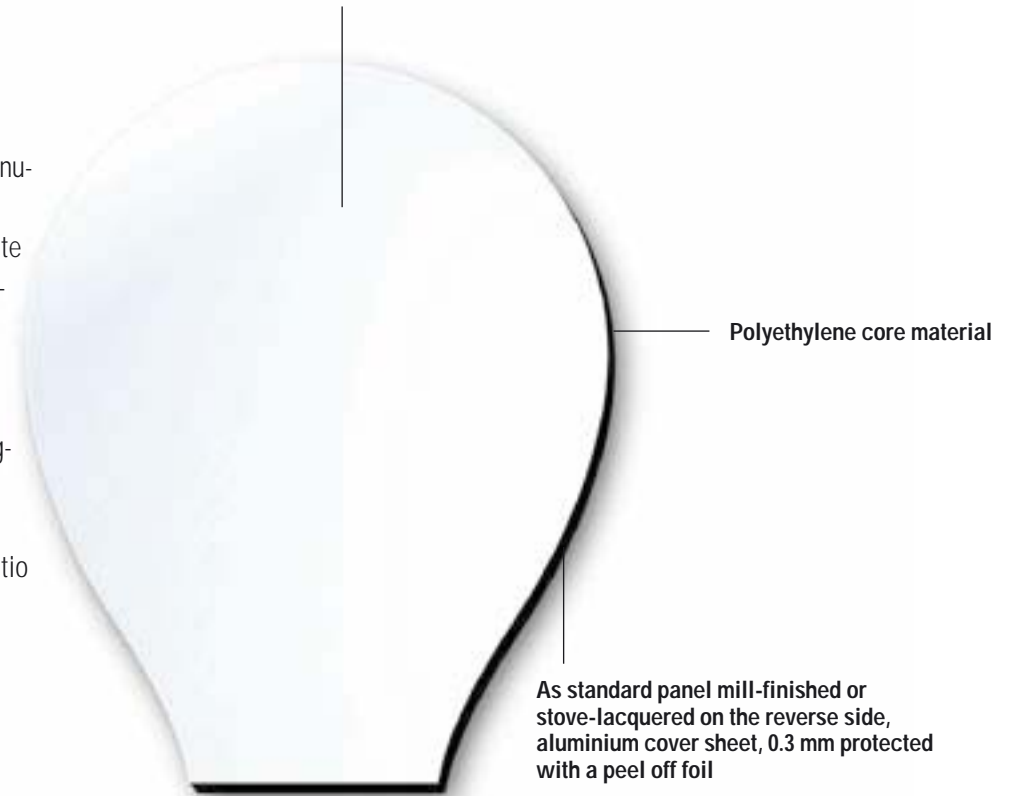
DIBOND – a brand name world-wide for a pioneering aluminium composite panel concept:

The stove-lacquered cover sheet on the front side and the mill-finish or stove-lacquered cover sheet on the reverse side are produced in a continuous finishing process.

The result is a light-weight composite panel with excellent product properties for indoor and outdoor applications – a material for creative planners and technicians with unlimited possibilities for visionaries and pragmatics. And last but not least, an environment-conscious decision, where the price and performance ratio is balanced.

DIBOND – for people with ideas.

As standard panel stove-lacquered on the front side, aluminium cover sheet, 0.3 mm protected with a peel off foil



### Technical Data

Panel thickness	[mm]	2	3	4	6
Cover sheet thickness	[mm]	0.3			
Weight	[kg/m <sup>2</sup> ]	2.90	3.80	4.75	6.60
Standard formats	[W x H]				
1000 x 2050 mm		•	•	•	
1250 x 2500 mm		•	•	•	
1250 x 3050 mm		•	•	•	
1250 x 4050 mm		•	•	•	
1500 x 3050 mm		•	•	•	•
1500 x 4050 mm		•	•	•	•
1500 x 5050 mm		•	•	•	
1500 x 6250 mm		•	•	•	

Panel thickness	[mm]	2	3	4	6
Core					
polyethylene, type LDPE	[g/cm <sup>3</sup> ]	0.92			
Surface					
lacquering		modified polyester lacquer system			
brilliance (initial value)		30 – 35 % accord. to Gardner			
hardness (pencil hardness)		H			
8 standard colours		see DIBOND® The Colours			
6 structural lacquering colours		see DIBOND® Structural Lacquered			
Delivered with protective foil		•	•	•	•
Temperature resistance		from – 50° to + 80° C			
UV stability		very good			

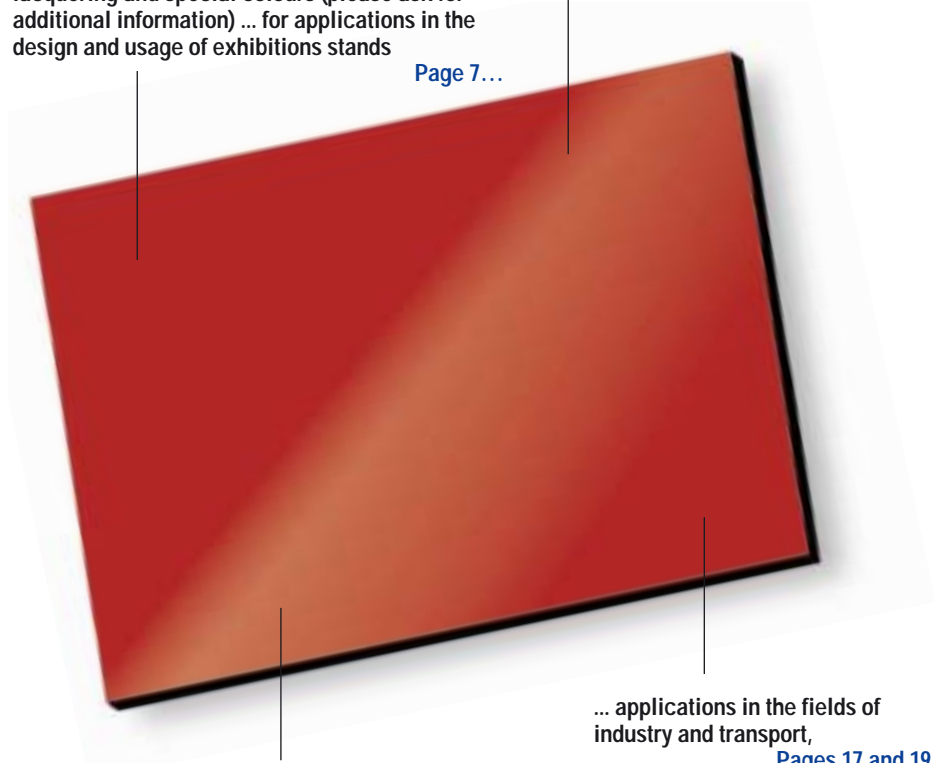
The low weight, excellent flatness and flexural stiffness are valued properties for foto mounting and screen printing – they stand by no means in contradiction to the unlimited possibilities for forming and joining, for example, in the design and usage of exhibition stands and display panels. A variety of special profiles in aluminium and accessories are included in the delivery program; detailed information on machining, technical data sheets and samples round off the program. Please ask for our additional documentation on:

- product information
- processing
- the colours
- Dibond SR
- documentation file
- CD ROM
- original colour samples

Available in 8 standard colours, 6 structural lacquering and special colours (please ask for additional information) ... for applications in the design and usage of exhibitions stands

Page 7...

... signs and POS/POP/displays, Pages 9 and 11...



... foto mounting and shop construction, Pages 13 and 15...

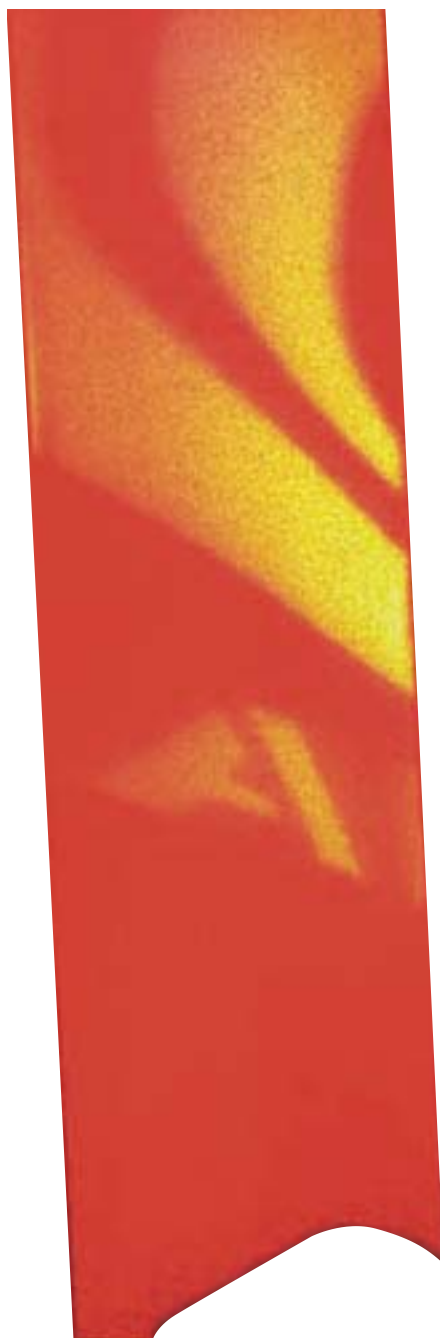
... applications in the fields of industry and transport, Pages 17 and 19

### Technical Specifications

Panel thickness [mm]	2	3	4	6
<b>Technical properties</b>				
moment of inertia I [cm <sup>4</sup> /m]	0.049	0.123	0.231	0.548
section modulus W [cm <sup>3</sup> /m]	0.51	0.81	1.11	1.71
rigidity E·J [kNcm <sup>2</sup> /m]	345	865	1620	3840
alloy/condition of the cover sheets	EN AW-5005A (AlMg1), H44			
modulus of elasticity [N/mm <sup>2</sup> ]	70,000			
tensile strength of the cover sheets [N/mm <sup>2</sup> ]	R <sub>m</sub> : 145 – 185			
0,2% proof stress [N/mm <sup>2</sup> ]	R <sub>p0,2</sub> : 110 – 175			
elongation	A <sub>50</sub> ≥ 3%			
linear thermal expansion	2.4 mm/m at 100° C temperature difference			

Panel thickness [mm]	2	3	4	6
<b>Acoustical properties</b>				
sound absorption factor α <sub>s</sub>		0.05		
Airborne sound insulation index R <sub>w</sub> [dB]	23	24	25	26
loss factor d	0.0048	0.0057	0.0072	0.0102
<b>Thermal properties</b>				
thermal resistance 1/Λ [m <sup>2</sup> K/W]	0.0047	0.0080	0.0113	0.0180
heat transition coefficient k [W/m <sup>2</sup> K]	5.72	5.61	5.50	5.30
water absorption DIN 53495 [%]		0.01		
static charge	no antistatic treatment necessary			

"Avoid, reduce, recycle" is the motto for the builder of fair stands – an insight that leads to increased modular and system design, but however, in the case of single stands, also mainly takes modular stand elements and wall panels, picture backings, ceiling constructions and 3-dimensional display and product presenters into consideration. DIBOND convinces the creative builder of fair stands of its dimensional stability, reusability and wide range of processing and machining possibilities. Its excellent lacquering and screen-printing properties as well as the laminated foil qualities invite the use of colour and individual surface profiling. Full surface foil replacement does not even leave a mark on the lacquer finish. DIBOND stands for unlimited freedom in design and guarantees long life.



### DIBOND fair stand qualities

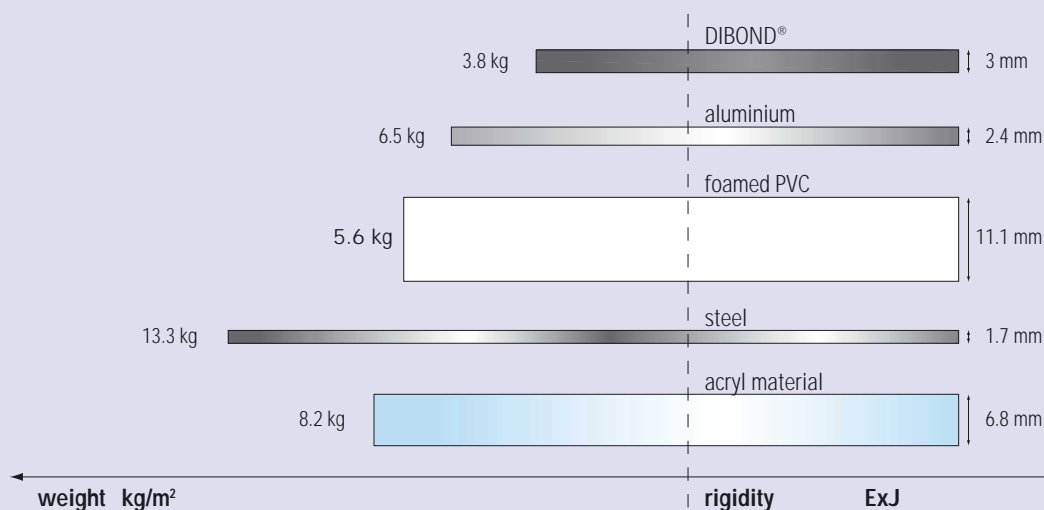
<b>Panel thickness</b>	[mm]	2	3	4	6
<b>Weight</b>	[kg/m <sup>2</sup> ]	2.90	3.80	4.75	6.60
<b>Europanel, standard height 2500 mm</b>		•	•	•	•



Irrespective of whether large sized wall surfaces for advertising at the airport or in shopping centres are concerned, company notice boards for the exterior or pylon columns, all the decision-making criteria relevant for the builder or designer speak out in favour of DIBOND. The screen printer, for example, appreciates the excellent flatness and the smooth surface when it comes to his requirement for accurate register alignment and high resolution half-tone screen printing. The sign maker decides on DIBOND for his outdoor applications, since no other material with the same flexural stiffness is of such light weight. DIBOND – you cannot get anything lighter than that....



Comparison of thickness and weight at equal flexural stiffness



Being able to display and present products and services in a clever way at the point of sale impresses the customer and onlooker on an emotional level. Highly imaginative or even bizarre elements can produce a suggestive effect. With DIBOND the designer discovers a material that besides filling functional and technical demands, allows optimum freedom, and highlights the product and the brand without the urge to dominate itself.

Three-dimensional forms can be achieved by means of folding and bending. Stands and supports can be joined permanently using rivets, screws, hot-air welding or glueing.

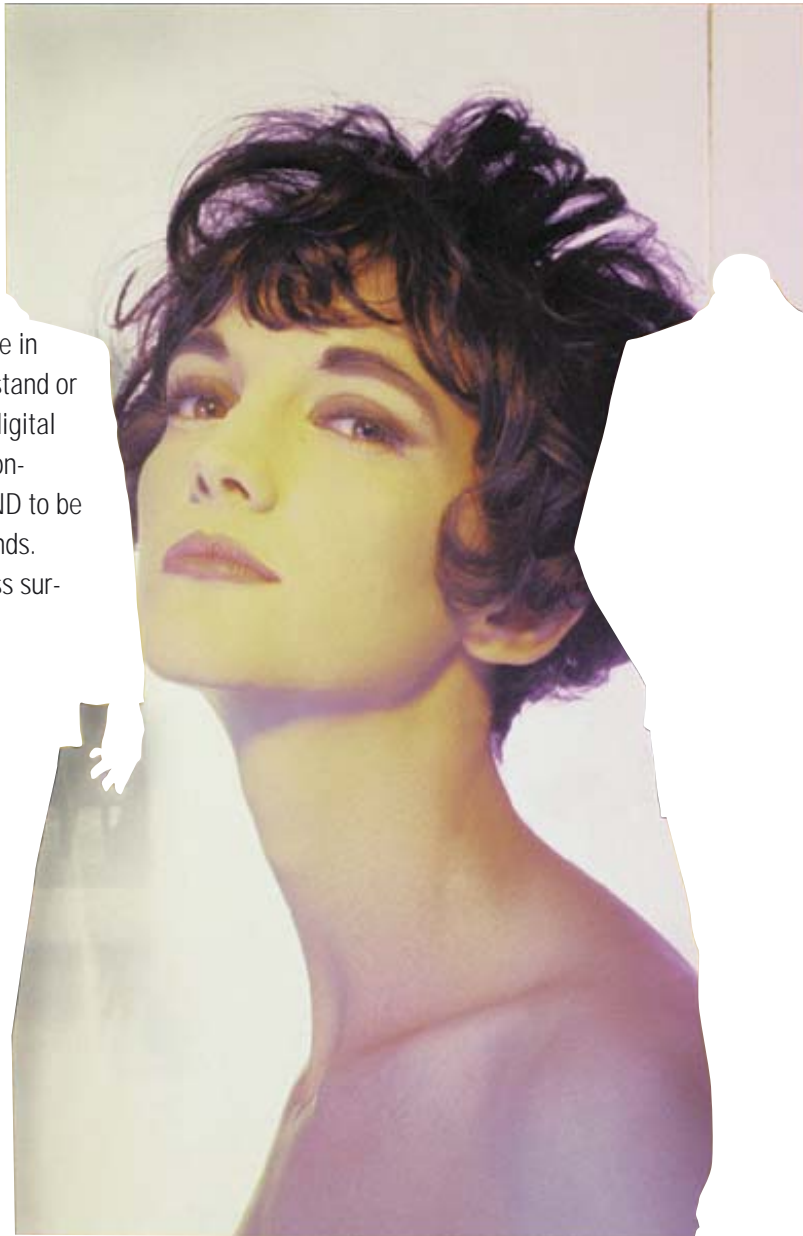


### DIBOND display qualities

Panel thickness	[mm]	2	3	4	6
Rigidity E-J	[kNm <sup>2</sup> /m]	0.034	0.086	0.160	0.384
Modulus of elasticity E		70,000 N/mm <sup>2</sup>			
Tensile strength of cover sheets		R <sub>m</sub> : 165 N/mm <sup>2</sup>			



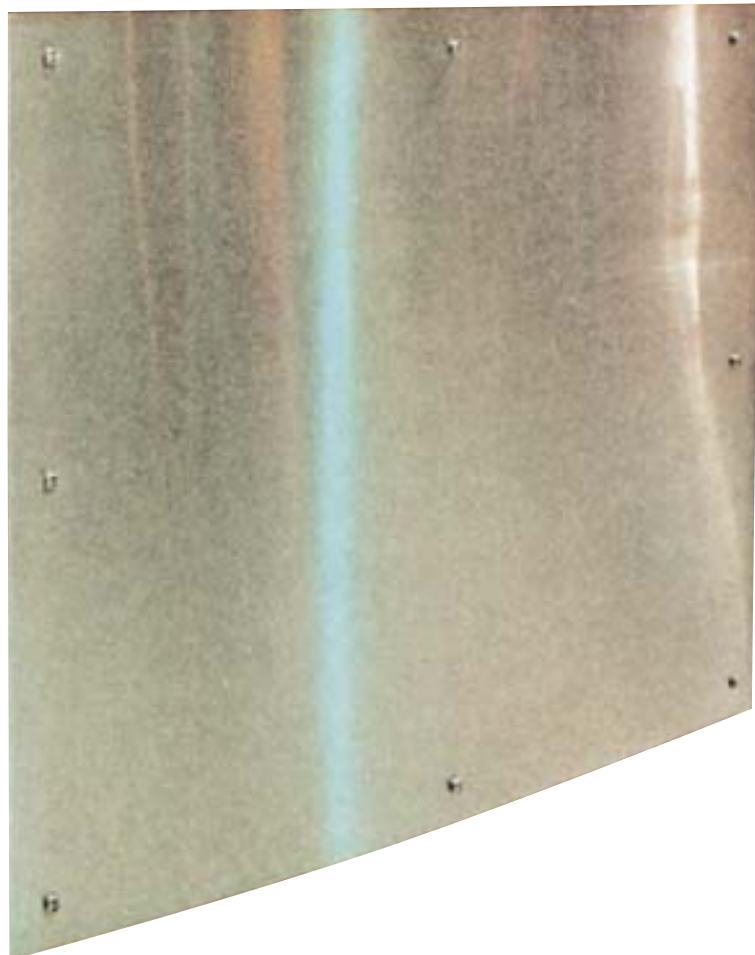
A picture tells more than 1,000 words, especially a large-sized photo. And wherever the artistic property of the picture frame effectively accentuates the picture, the backing material gains a particular significance for its commercial application. If, for example, the reverse side of the panel is used for laminating, the lacquered front side sets off the overall aesthetic appearance in a special way for exhibits that stand or hang on their own. Whether a digital print or photo reproduction is concerned, you will discover DIBOND to be a backing for the highest demands. Excellent flatness and a flawless surface finish enable problem-free mounting with adhesive foil or sprayed adhesives.



### DIBOND enlarged photo laminate qualities

Panel thickness	[mm]	2	3	4	6
Water absorption DIN 53495	[%]	0.01			
Linear thermal expansion	2.4 mm/m at 100° C temperature difference				
Static charge	No antistatic treatment necessary				

The aspect that people enjoy most of all when shopping is seeking and finding a certain item. It is the "finding out who's got it" search for a shop that stocks the specific item one is looking for and the atmosphere that one enjoys. Architecture and interior design provide the frame conditions; material and aesthetics are responsible for the formal compactness. Here, the application of DIBOND is favoured for displays, partitions or for cladding counters and goods containers; DIBOND SR has been specially developed for wall-claddings. Its structural lacquering excels due to its long-term durability, resistance and easiness to look after. A variety of profiles and fixation elements round off the entire program.







DIBOND composite panels are also fully in trend for industrial applications. The reason for this development is due to several excellent properties:

- a) its lightness
- b) its comparably high rigidity
- c) its very good sound-absorbing properties

Furthermore, due to its strong durability, excellent processing and machining possibilities and its full recycling ability, DIBOND is a suitable material for a great many industrial applications.



### DIBOND thermal properties

Panel thickness [mm]	2	3	4	6
Thermal resistance 1/Δ [m²K/W]	0.0047	0.0080	0.0113	0.0180
Heat transition coefficient k [W/m²K]	5.72	5.61	5.50	5.30
Temperature resistance	from - 50° to + 80° C			

"Quicker, lighter, further" so the economic principle behind transport – irrespective of whether the transport is by air, sea, road or rail. The ideal material is aluminium and together with it, the aluminium composite panel for installations and superstructures, special accessories, cases and boxes. Since DIBOND has an absorbing effect on vibration and sound besides its basic properties, and since its technological qualities are favoured when it comes to economic alternatives to conventional panel materials, and since the price/performance ratio plays a decisive – and in the true sense of the word – bearing role...



### DIBOND sound-absorbing properties

Panel thickness	[mm]	2	3	4	6
Acoustical absorption	$\alpha_s$		0.05		
Airborne sound insulation index $R_w$ (accord. to ISO 717-1)	[dB]	23	24	25	26
Loss factor d		0.0048	0.0057	0.0072	0.0102



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dibond.  
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a global organisation**

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**DIBOND® FOREX® KAPA® FOAM-X® THERMOPET®**

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