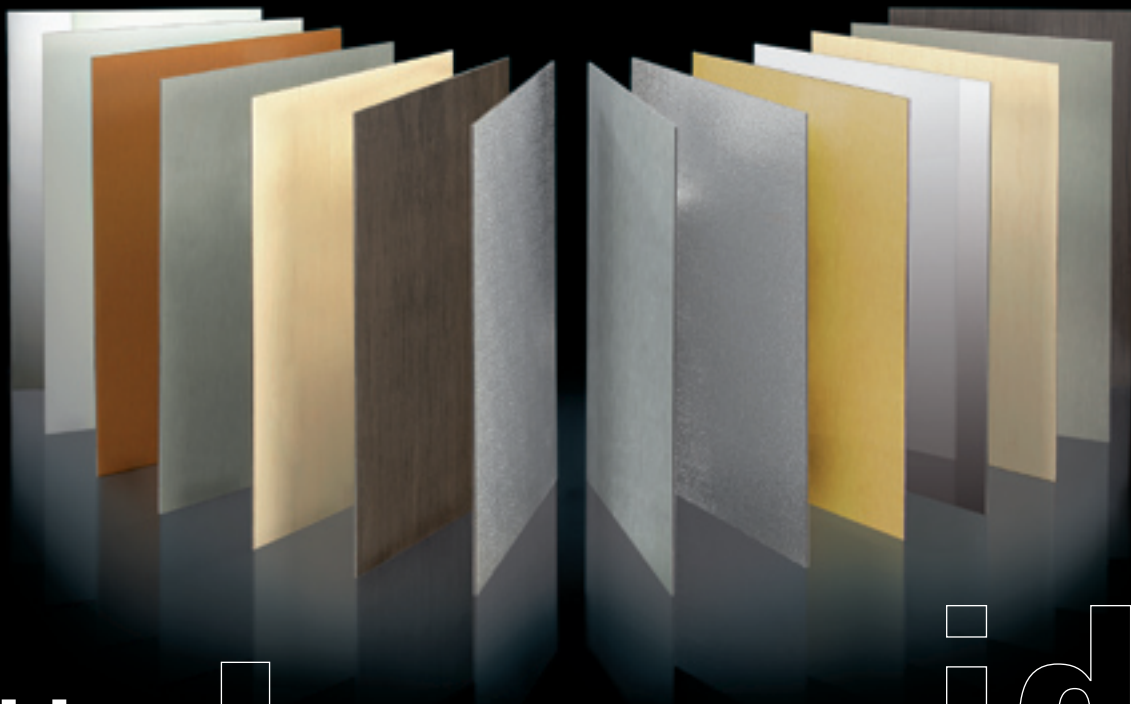


# DIBOND®



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ALCAN COMPOSITES



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## DIBOND® ...

... was originally developed over 20 years ago by the inventors of the first Aluminium Composite sheet, Alucobond, as a product for the display and signage markets.

Over the years the development of DIBOND® has enabled it to be seen as a solution for a vast array of different industries. The number of high quality and decorative surfaces has enabled DIBOND® to be used in areas such as furniture design, shop fitting, bar and restaurant fit outs and exhibition stands.

As you would expect from such an innovating company, ALCAN COMPOSITES is always seeking new finishes to offer more exciting applications to the market. To this end we have developed this brochure that not only gives you a insight to our vibrant designs, but it also enables you to appreciate the highly technical attributes of the product as well as giving you an understanding of the vast array of different designs that can be easily fulfilled in DIBOND®.

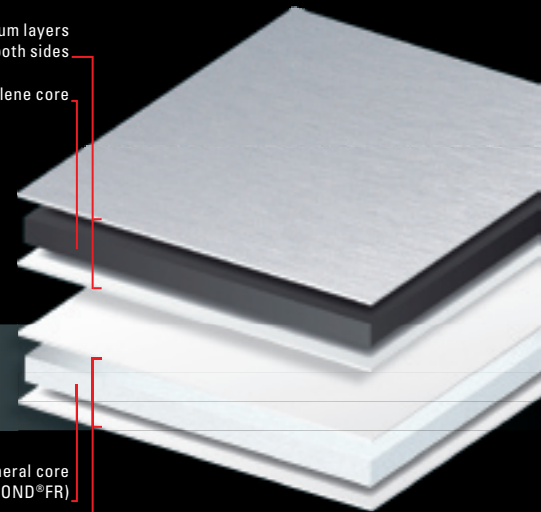
**Quality meets Design – get inspired!**

0.3 mm Aluminium layers  
Protective film on both sides

Polyethylene core

Mineral core  
(DIBOND®FR)

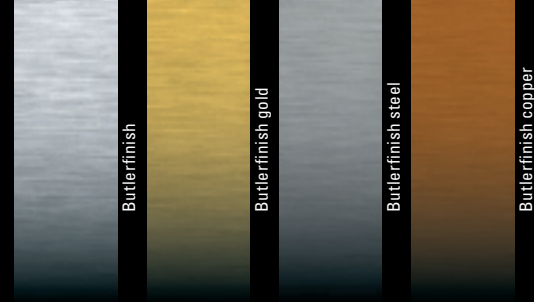
0.3 mm Aluminium layers  
Protective film on both sides



# style

# DIBOND®butlerfinish

The attractive and unique brushed appearance of DIBOND® butlerfinish is produced by running the cover plate through rollers that emboss the surface to give a brushed aluminium effect. To protect the surface, the coil is then stove enamelled with a clear lacquer, this allows the brushed aluminium effect to remain visible, but ensures no degradation of the surface. This vibrant effect finds its natural home in areas such as shop fitting, in-store design, furniture construction, high quality POS/POP applications and signage applications. Whether for interior or exterior use, its ability to be used in either 2D or 3D, as well as a wide range of processing possibilities such as, rolling, routing, bending and bevelling, means that



Dibond® becomes the perfect substrate for those creating new designs. The brushed aluminium effect is complimented by gold, stainless steel and copper versions.

At a glance:

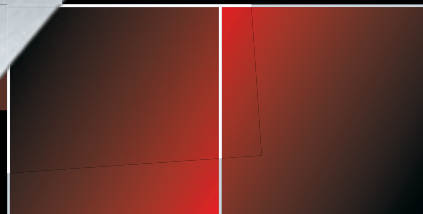
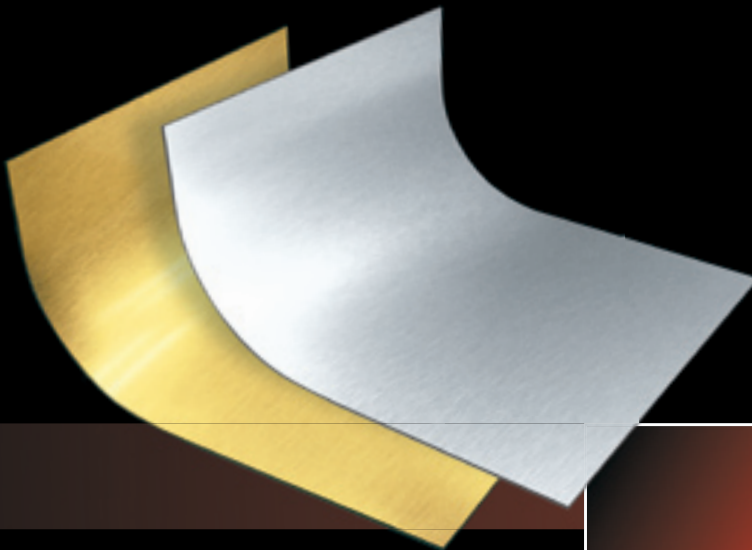
- Embossed brushed effect
- Characteristic structure
- Excellent results with screen printing and direct digital printing
- Clearly varnished surface (pigmented varnishes have a reduced UV resistance)
- Optimum processing parameters

### DIBOND®butlerfinish in the following standard formats:

Front: butlerfinish, Reverse: mill finish clear coat

Width	1 250			1 500		
Length	2 500	3 050	4 050	2 500	3 050	4 050
Thickness 2	■	■	■	■	■	■
3	■	■	■	■	■	■
4	■	■	■	■	■	■

Dimension are in mm



# DIBOND® eloxal

Anodized 5 µm

Anodized 10 µm

In a special procedure, the surfaces of DIBOND® eloxal are provided with an anodic coating thickness of 5 µm or 10 µm and are therefore clearly harder when compared with lacquer systems.

Due to its corrosion resistance and robustness, DIBOND® eloxal can be used everywhere where particular robustness is required. The especially authentic metal effect of the material ensures consistently high quality visuals, particularly with interior applications. DIBOND® eloxal is therefore predominantly used for decorative surfaces in shop, furniture and trade fair constructions, for product advertisements at POP counters and displays. In terms of its processing, DIBOND® eloxal can be processed

in the same ways as the standard DIBOND®. With round bends, however, large bending radii must be applied to make sure that the anodic layer doesn't break. For the routing and folding technique we recommend the use of varnished surfaces.

At a glance:

- Anodized on each side
- Abrasion proof and scratch resistant
- No finger print markings left on the surface
- Safe when used with food products
- Highly suited to screen printing
- For interior uses

## DIBOND® anodized 5 µm is available in the following standard formats:

<b>Width</b>	1 250	
<b>Length</b>	2 500	3 050
<b>Thickness</b>	3	4
	■	■
	■	■

Front: anodized 5 µm  
Reverse: anodized 5 µm (Aluminium look)

Dimension are in mm

## DIBOND® anodized 10 µm is available in the following standard formats:

<b>Width</b>	1 500	
<b>Length</b>	3 100	4 100
<b>Thickness</b>	2	3
	■	■
	■	■
	■	■
	■	■

Front: anodized 10 µm  
Reverse: anodized 10 µm (Aluminium look)

Dimension are in mm



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# DIBOND®stucco



Stucco

New DIBOND®stucco is an aluminium composite panel with a distinctive and special finish, combining the uneven raised texture of traditional stucco plaster, with a highly reflective surface. This is achieved by a special aluminium cover layer which is anodised after embossing. The result is a surface which is extremely hard wearing and conforms to food grade material specifications.

Under lighting, DIBOND®stucco provides an eye-catching, shimmering effect, with points of light reflected by the uneven surface. It is also extremely tactile and resistant to marking, making it suitable for applications where human contact may frequently occur. DIBOND®stucco is ideal for use in design schemes for all kinds of commercial, retail and leisure facilities. Typical applications include bars and counters, fascias and wall finishes, furniture and displays. Like other DIBOND® materials, it can be processed using a variety of standard techniques,

including sawing, drilling, routing and folding to form three dimensional items. Due to its special surface structure, DIBOND®stucco is not suitable for printing, laminating or CNC milling. Fixing and bonding can be carried out, using special techniques which allow for the surface texture.

At a glance:

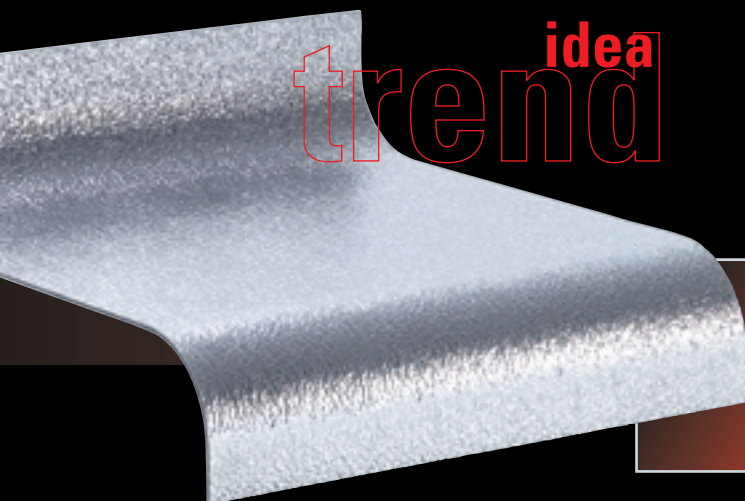
- Special finish, combining raised texture with highly reflective surface, anodized
- 3D effect
- Scratch resistant
- Indoor use

**DIBOND®stucco is available in the following standard formats:**

Front: stucco, Reverse: mill finish clear coat

Width	1250	
Length	3050	4050
Thickness 2	■	■
3	■	■
4	■	■

Dimension are in mm



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# DIBOND®FR

FR

Many applications in the private and public sectors meanwhile require materials to conform with certified standards for fire performance. For these, we have developed DIBOND®FR: a composite panel with two aluminium cover layers and a mineral core – as a result of which this composite product has been given the fire classification “fire retardant”. DIBOND®FR meets fire classification class B s1, d0 according to EN 13501-1, the new European standard norm. This classification is achieved without the addition of halogenated fire retardants, making the material non-toxic. DIBOND®FR can be used in a variety of applications, wherever increased fire protection regulations are in place: airports, metros, trade fair halls, shopping malls, public buildings, shops and interior panelling or guidance systems using displays and signs.

DIBOND®FR can be processed in exactly the same way as other DIBOND® sheets (apart from hot air welding), making it suitable for both flat and three dimensional applications.

At a glance:

- Flame retardant fire classification class B, s1, d0 according to EN 13501-1, the new European standard norm.
- Core with mineral core, without halogenated fire retardants making the material non-toxic
- All well-known DIBOND® processing possibilities possible (except for hot air welding)
- Excellent performance, including with bending and mill cutting technology

**DIBOND®FR is available in the following standard formats:**

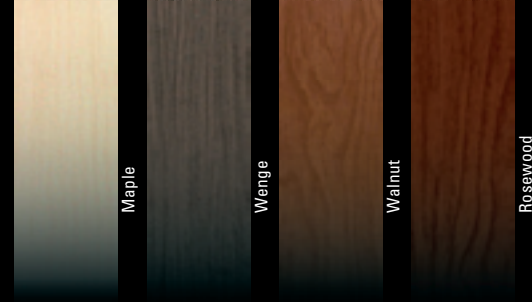
Front: platinum white, Reverse: platinum white

Width	1 500	
Length	3 050	4 050
Thickness 2	■	■
3	■	■
4	■	■

Dimension are in mm

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# DIBOND®decor



New to the DIBOND® range, DIBOND®decor is a selection of aluminium composite panels with realistic wood effect finishes. Designers looking for a sustainable, durable and easy-to-fabricate alternative to hardwoods will appreciate this new development. Compared to real wood, DIBOND®decor is not sensitive to dampness and temperature changes and can therefore be used in long term external and internal applications, with no need for maintenance.

Three dimensional designs can be implemented easily, as the sheets can be routed and folded like other DIBOND® products. This characteristic provides another crucial advantage over real woods: the material can be pre-routed, and delivered to site flat. Folding to finished shape can then be carried out by hand, with no tools, on site – in a matter of minutes. Other standard fabrication techniques including drilling, sawing and stamping, can also be employed.

DIBOND®decor is an excellent material for direct-to-substrate screen and digital printing, making it suitable for presenting images and advertising messages. It is ideal for use in design schemes for all kinds of commercial, retail and leisure facilities. Typical applications include fascias and wall finishes, point-of-sale displays, bars and counters, furniture and exhibitions.

At a glance:

- Resistant to temperature changes between -50°C up to +80°C
- Low weight compared to real wood saving efforts costs with handling, transport and installation
- Highly suited to direct – to – substrate digital printing
- Optimum processing parameters – including easy bending
- No maintenance costs

**DIBOND®decor is available in the following standard formats**

Front: decor, Reverse: mill finish clear coat

<b>Width</b>	1500
<b>Length</b>	3050
<b>Thickness</b>	2 ■
	3 ■
	4 ■

Dimension are in mm



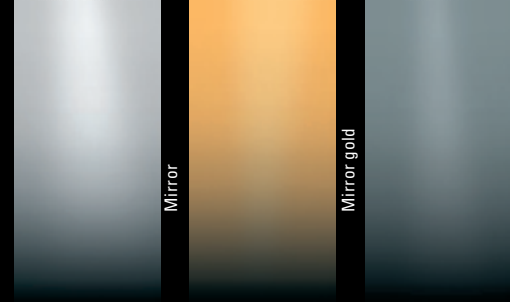
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# DIBOND®mirror

The reflective DIBOND® surface for the display area boasts similar reflective attributes to a conventional glass mirror – but it doesn't break and it only weighs about half as much. DIBOND®mirror creates more light and reflection transparency indoors and is therefore the first choice in the interior designs of shops, hotels, bars and other places of leisure. It is also popular in the area of trade fair design and for applications in public buildings where safety takes precedence. Thanks to its printability using screen printing and direct digital printing or through laser printing, DIBOND®mirror can also be optimally used to carry advertising messages. In terms of its processing, DIBOND®mirror boasts almost the same qualities as the standard DIBOND®; it only allows for limited folding or bending, however.

DIBOND®mirror picks up points when it is compared with mirrors which are made out of plastic because the surface of the mirror doesn't flake off when it is cut to size. In terms



Mirror

Mirror gold

Mirror anthracite

of its mounting, it is noteworthy that DIBOND®mirror is less sensitive to pressure than glass, which often shatters when it is tightly mounted, and that it is also less sensitive than them, which often warp at their fastening points or to temperature change that often results in acrylic mirrors distorting.

#### At a glance:

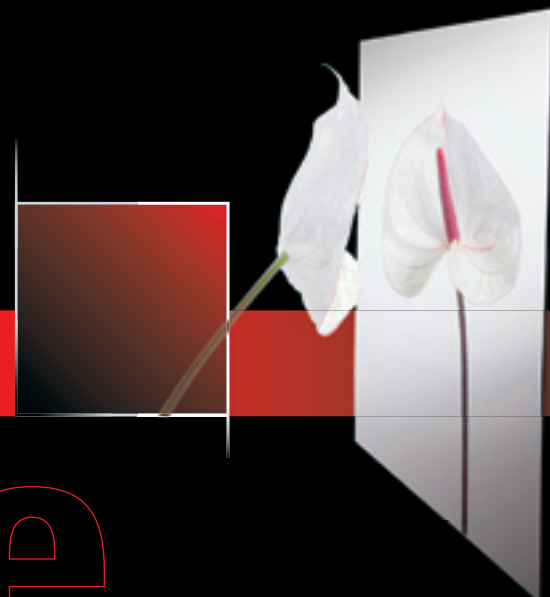
- Similar reflective quality to a conventional glass mirror
- Break resistant and low weight advantages in terms of handling, transport and installation
- Surface of mirror does not flake off during cutting
- Less sensitive to pressure than glass or acrylic: problem-free mounting without warping
- More resistant to temperature changes reducing distortion
- Highly printable using screen or digital printing
- Different product versions for internal and external uses

#### DIBOND®mirror is available in the following standard formats:

Front: mirror Reverse: mill finish clear coat

Width	1 250		
Length	2 500	3 050	4 050
Thickness 3	■	■	■
4	■	■	■

Dimension are in mm



# style

# DIBOND®digital

Digital

DIBOND®digital is the first aluminium composite material with a lacquer system that's optimised for direct to substrate digital printing. The surface of the new DIBOND®digital provides enhanced ink adhesion for UV-curing and solvent based inks. The combination of both the enhanced ink adhesion and the extreme flatness of the panel make it not only possible to be printed with very fine structures and lines when printing but also allow an increased printing speed. In fact, in its cross hatch test the result achieved in various printing tests at printing machine manufacturers was an impressive 0.

The thickness tolerance of only 0.2mm allow a very small clearance between panel and the print heads. DIBOND®digital is furthermore UV-resistant and can be used with temperatures up to 80°C resulting in two remarkable advantages: first, the UV lamps would not cause any distortion and second, the material can be used outside being resistant to any temperature changes. Therefore DIBOND®digital is widely specified for both internal and external signs in advertising campaigns, exhibitions and

event marketing, photomounting as well as for hoardings and where ever there is the need for high quality imaging and long service life. Compared to standard DIBOND®, DIBOND®digital comes with 0.2mm aluminium layers making it ideal for plane applications. For large size signage and complex processing (e. g. folding techniques) we recommend to use DIBOND® with 0.3mm aluminium layers. Otherwise DIBOND®digital can be processed just as standard DIBOND®.

At a glance:

- 0.2 mm aluminium layers
- New lacquer system with enhanced ink adhesion optimised for direct to substrate digital printing
- Increased printing speed possible
- UV- resistant and resistant to temperature changes between -50°C up to +80°C – perfect for outside use
- Perfect printing results – Cross Hatch Test = 0
- Extremely flat, strong and rigid

**DIBOND®digital is available in the following standard formats:**

Front: white, Reverse: white

	1 250	1 500
	2 500	3 050
2	■	■
3	■	■

Dimension are in mm



## PROCESSING



Sawing



Riveting



Mounting/Laminating



Guillotining



Sawing



Varnishing/Lacquering



Stamping



Hot air welding



Painting/Paint spraying



Routing



Clamp



Cold bending



Gluing



Folding  
(V-groove)



Screen printing



Drilling



Digital printing

### Advice and Recommendation:

The processing parameters presented represent the complete range of processing possibilities with DIBOND®. They do not generally apply to all panels and surfaces, however. Please refer to the corresponding product texts for exceptions pertaining to the processing and the use of the products. We recommend that you read our processing brochure prior to processing.

If you have any specific questions, our experts in the applications technology department will be pleased to support you with further information. Moreover we want to advise that all formats are standard formats ex works. Your local distributor can of course provide you with individual sizes and cut-outs according to your demands.



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ALCAN COMPOSITES  
Alcan Singen GmbH  
78224 Singen, Germany  
Tel. + 49 (0) 77 31 - 80 29 89  
Fax + 49 (0) 77 31 - 80 21 05  
display.eu@alcan.com  
www.dibond.eu

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