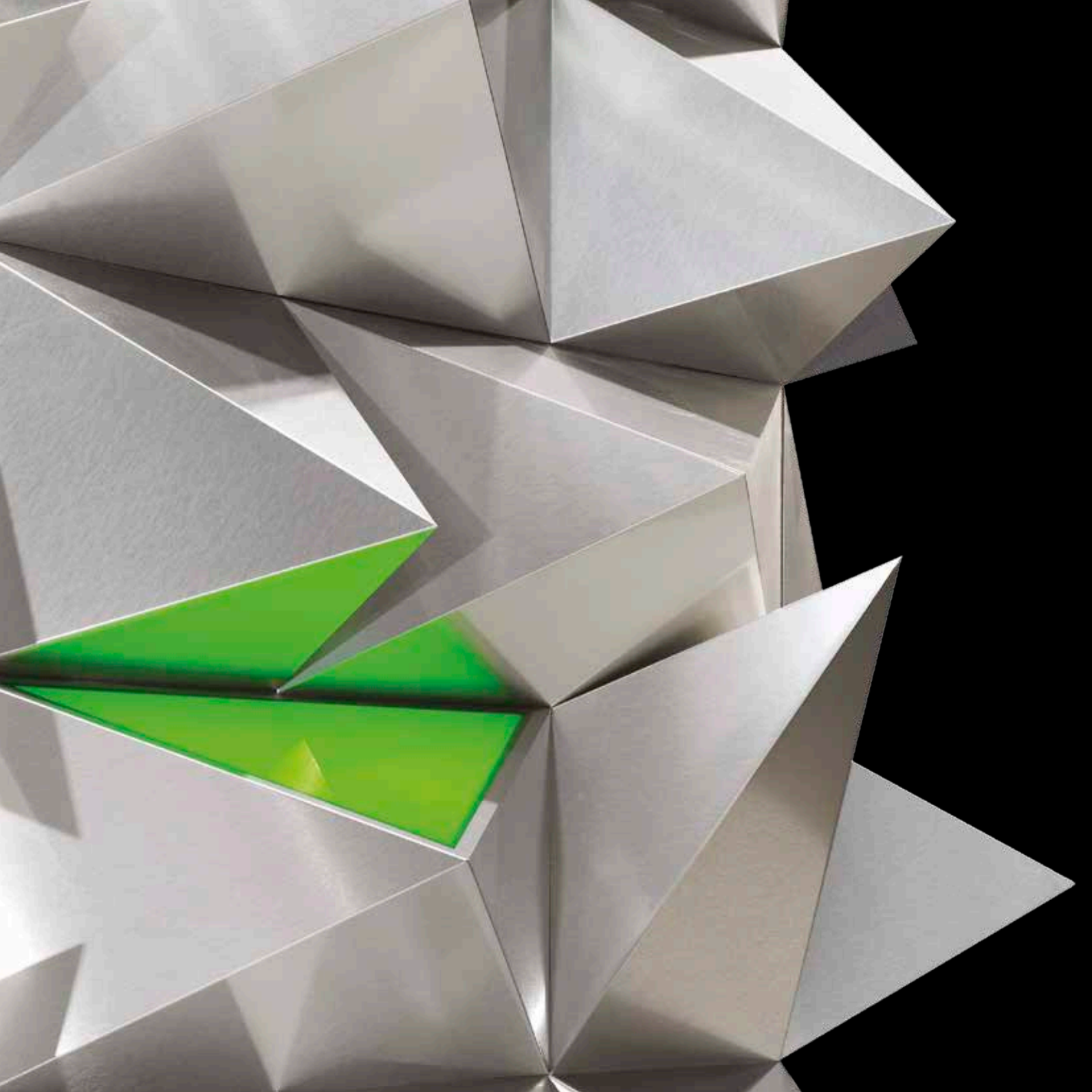
DIBOND®

3A COMPOSITES



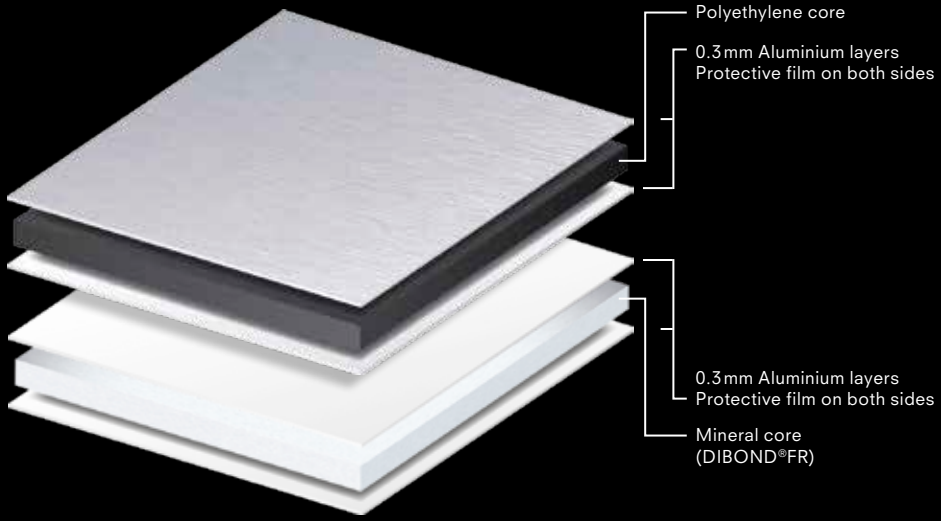
DIBOND®

… was originally developed over 20 years ago by 3A Composites, formerly known as Alcan Composites, as a product for the display and signage markets.

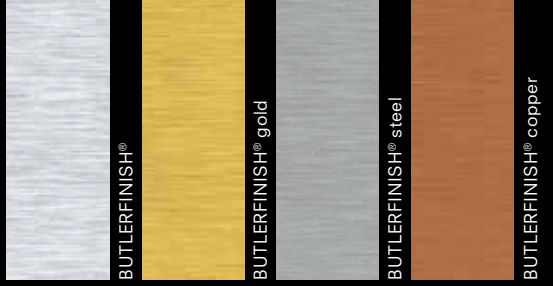
Over the years the development of DIBOND® has enabled it to be seen as a solution for a vast array of different industries. The number of high quality and decorative surfaces makes DIBOND® perfectly suitable for areas such as furniture design, shop fitting, bar and restaurant fit outs as well as exhibition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

With innovation playing a key role 3A Composites is always seeking new finishes to offer more exciting applications to the market. This brochure gives you an overview of our vibrant designs and enables you to appreciate the highly technical attributes of the product as well as the vast array of different designs that can easily be realized with DIBOND®.

Quality meets Design – get inspired!



BUTLERFINISH®



The attractive and unique brushed appearance of 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.

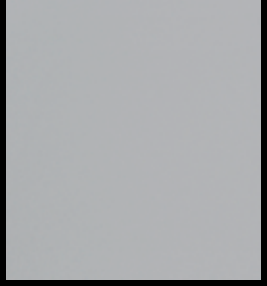
At a glance:
- Embossed brushed effect
- Characteristic structure
- Excellent results with screen printing and direct digital printing
- Clearly varnished surface (pigmented varnishes have a reduced UV resistance)
- Optimum processing parameters

BUTLERFINISH® is available in:
Front: BUTLERFINISH®, Reverse: mill finish

Width	1250			1500		
Length	**2500**	**3050**	**4050**	**2500**	**3050**	**4050**
Thickness						
2	■	■	■	■	■	■
3	■	■	■	■	■	■
4	■	■	■	■	■	■

Dimensions are in mm

DIBOND®eloxal



In a special procedure, the surface of DIBOND®eloxal is provided with an anodic coating thickness of 10µm and is therefore clearly harder when compared with lacquer systems.
Due to its corrosion resistance and robustness, DIBOND®eloxal can be used where particular robustness is required. The 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 processing, DIBOND®eloxal can be processed in the same ways as the standard DIBOND®. For the routing and folding technique we recommend the use of varnished surfaces.

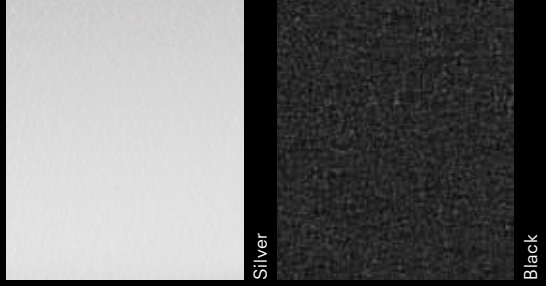
At a glance:
- Anodised on each side
- Abrasion proof and scratch resistant
- No finger print markings left on the surface
- Highly suited for screen printing
- For interior uses

DIBOND® with an anodic coating thickness of 10µm is available in:
Front: anodized 10µm, Reverse: anodized 10µm (aluminium look)

Width	1500	
Length	3100	4100
Thickness		
2	■	■
3	■	■
4	■	■
6	■	■

Dimensions are in mm

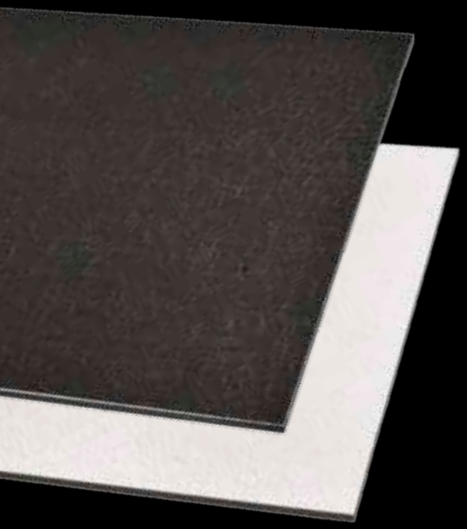
DIBOND®structure



DIBOND®structure gets its characteristic look by using a special coating system that provides the panel with a haptic surface which does not show any traces of usage. With its black or optionally silver surface, DIBOND®structure ensures bright accents. Especially as an eye catcher, used selectively to accentuate or extensively for full cladding, high quality products can be represented with DIBOND®structure in an excellent way. Applications cover the fields of shop fitting, wall cladding, interior design, bars and counters.

With regard to processing, DIBOND®structure can be used mostly in the same way as DIBOND® in its standard version. Thus, it is well-suited for fabrication techniques such as sawing, cutting, milling, folding, 3-dimensional formability, etc.
Due to its surface structure, however, DIBOND®structure is not suitable for printing and laminating. There are also different parameters regarding gluing and fixing that result from the surface structure.

At a glance:
- Characteristic structure due to special coating system
- Special haptics and aesthetics
- Suitable for interior applications



DIBOND®structure is available in:
Front: silver, Reverse: black

Width	**1500**	
Length	**3050**	**4050**
Thickness		
2	■	■
3	■	■
4	■	■

Dimensions are in mm

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.

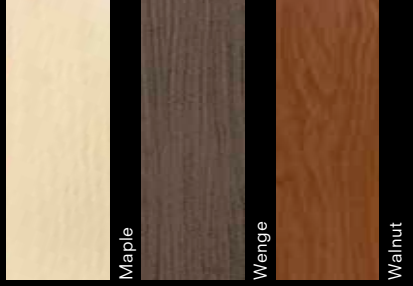
At a glance:
- Flame retardantfire classification class B, s1, d0 according to EN 13501-1, the European standard norm.
- Mineral core without halogenated fire retardants making the material non-toxic
- Suitable for all well-known DIBOND® processing possibilities (except for hot air welding)
- Excellent performance, including bending and mill cutting technology

DIBOND®FR is available in:
Front: platinum white, Reverse: platinum white.
Other surfaces on request.

Width	**1500**	
Length	**3050**	**4050**
Thickness		
2	■	■
3	■	■
4	■	■

Dimensions are in mm

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:

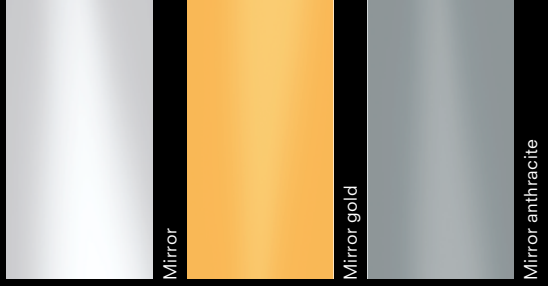
- Resistant to temperature changes between -50°C up to +80°C
- Low weight compared to real wood saving efforts costs with handling, transport and installation
- Highly suited to direct – to – substrate digital printing
- Optimum processing parameters – including easy bending
- No maintenance costs

DIBOND®decor is available in:
Front: decor, Reverse: mill finish

Width	1500
Length	3050
Thickness	
2	■
3	■
4	■

Dimensions are in mm

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 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
- Printable using screen or digital printing
- Different product versions for internal and external uses

DIBOND®mirror is available in:
Front: mirror, Reverse: mill finish

Width	1250		
Length	**2500**	**3050**	**4050**
Thickness			
3	■	■	■
4	■	■	■

Dimensions are in mm

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 0.2 mm 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, photo-mounting 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 0.2 mm 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 0.3 mm 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:
Front: white, Reverse: white

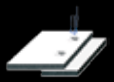
Width	1250	1500
Length	2500	3050
Thickness		
2	■	■
3	■	■

Dimensions are in mm

PROCESSING

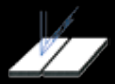

Sawing


Cold bending


Screwing


Gluing

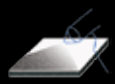

Mounting / Laminating

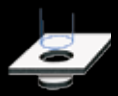

Guillotining

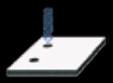

Folding (V-groove)


Hot air welding

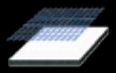

Digital printing


Varnishing / Lacquering

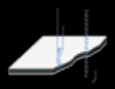

Stamping

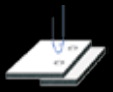

Drilling


Clamp


Screen printing


Painting/ Paint spraying


Routing


Riveting

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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