

ALUCOBOND®

CREATE THE DIFFERENCE

Creative possibilities with the original, aluminium composite panel



fascinating world of spectra



Contemporary cubist architecture with an autumn expression for a neighbourhood school design:
Waldeck-Schule - Singen, Germany
Architect : Büro Riede - Singen, Germany

ALUCOBOND spectra® colours celebrate the natural colour shifts that occur in materials that affect everyday life: The subtle nuances and colour contrasts found readily in nature, the glowing luster and sheen in modern metals and the colour shifts found in today's luxury goods. Colour adds fascination to the world, ALUCOBOND spectra® colours add fascination to architectural design.

ALUCOBOND spectra® colours operate on the same principals as natural colour shifting surfaces. Depending upon the pigment type and viewing angle, different wavelengths of light are reflected back to the audience resulting in an ever-changing colour gradient with iridescent highlights. With ALUCOBOND spectra® colours, architects can create a truly memorable experience that will fascinate the audience and provide a lasting personal impression. The use of high-quality Fluorocarbon paint systems applied in a continuous coil-coating process ensures that the original design isn't compromised.

A perfect combination for an exclusive interior design:
Grand Indonesia / Harvey Nichols - Jakarta, Indonesia
Architect : PT Anggara Arhiteam - Jakarta, Indonesia



naturAL beauty



Completely renovated and adapted to a more dynamic appearing education centre

Centre de Formation Bull - France

Architect : Axel Schoenert - Cabinet d'Architecture ASAA - France



ALUCOBOND® naturAL surfaces amplify the natural beauty and character of aluminium to enhance the design of your architectural project. The finely textured aluminium surface scatters light for a close-up visual effect, while retaining the look and lustre of smooth aluminium from afar. It is the ultimate cladding solution for achieving the sophisticated tone that your architectural vision demands. Now, your entrance, columns, and pylons can make a bold statement - without upsetting your budget!

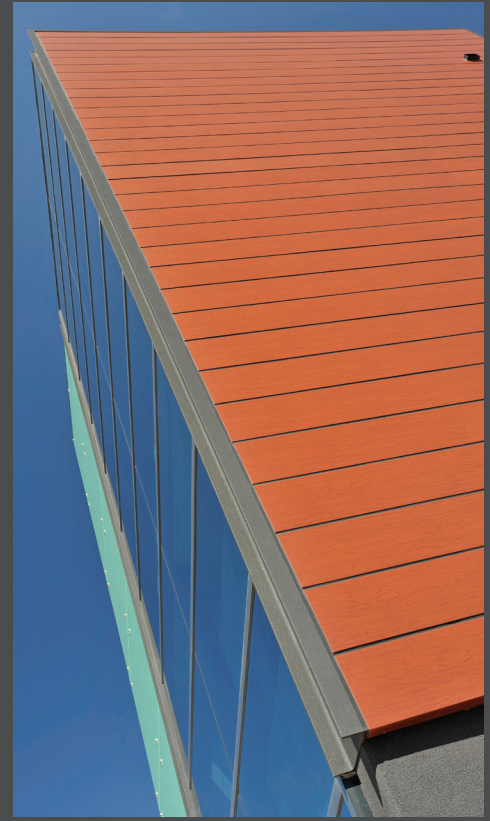
ALUCOBOND® naturAL surfaces are easy to clean and care for, unlike other metal sheets (i.e. solid sheets with a brushed surface). Both attractive and ingenious, ALUCOBOND® naturAL is the ideal material for Interior

The office tower next to the Petronas Twin towers:

Lot C - Kuala Lumpur, Malaysia

Architect : aQidea Architect - Kuala Lumpur, Malaysia

splendor of timberAL



Landmark office building provides life to Main Street and complements the surrounding amenity.

Main Street Mornington - Australia

Architect: Qanstruct - Australia

ALUCOBOND® timberAL finishes unify the natural beauty of timber and the outstanding features of ALUCOBOND® aluminium composite panels to enhance the design of your architectural project.

ALUCOBOND® timberAL is available in 5 modern timber patterns. The use of a high quality paint system applied in a continuous coil-coating process ensures that the timber look is not compromised for many decades to come.

Selecting ALUCOBOND® timberAL for projects which require environmental friendly materials is literally anatural choice, as it is weather resistance, no rotting, moisture resistant, insect proof and fully recyclable.



A sport complex to encourage public interaction:

Siu Sai Wan Complex - Hong Kong

Architect : Ronald Lu & Partners - Hong Kong

Create the difference.



Formed as a group of cut diamonds, the buildings metaphorically imply the crystalline body of student knowledge shaped by the education of this university:

Bangkok University - Thailand

Architect : A49 - Bangkok, Thailand

THE MATERIAL DREAMS ARE MADE OF

ALUCOBOND® offers architects and designers unlimited scope for creative, innovative and individual planning. The application possibilities for the interior and exterior are just as versatile as the properties of the product itself. The material stands out due to its exceptionally good formability and high rigidity at the same time. And due to its low weight, it is also ideally suitable for applications using large-sized panels. Since it can be easily processed by fabricators and envelope contractors using commercially available tools and offers a wide range of colours and surfaces, undreamt possibilities unfold for creative design planning combined with a realistic realization and budget.

These excellent properties have enabled ALUCOBOND® to become the global market leader in the sector for aluminium composite panels for many years and also enabled globally unique projects to be created. We are very proud of this; at the same time, however, we regard our pioneering role as a stimulus for setting new standards for the future, by continually creating new innovations using ALUCOBOND® and finding global solutions with architects and creative people for implementing exceptional projects.

A white gold pearl shopping mall in the growing suburb of Tangerang:

Living World - Jakarta, Indonesia

Architect: Urban - Thailand and Tetra Desain - Indonesia



ALUCOBOND®

Product Information

ALUCOBOND® aluminium composite panels consist of a polyethylene core sandwiched between two sheets of aluminium.

ALUCOBOND®plus aluminium composite panels consist of a high mineral filled core sandwiched between two sheets of aluminium.

Available Sizes

ALUCOBOND®		ALUCOBOND®plus	
Thickness	: Standard: 4 mm For special application 3 mm, 6 mm	Thickness	: Standard: 4 mm For special application 3 mm
Width	: Standard: 1000,1250,1500 mm Special: min. 850 mm max. 1575 mm	Width	: Standard: 1250, 1500 mm Special : min. 1000 mm max. 1510 mm
Length	: To customer's specification max. 8000 mm	Length	: To customer's specification max. 8000 mm

Technical Data

Panel-Thickness:		3mm	4mm	6mm
Thickness of Aluminium Cover Sheets	[mm]	0.50	0.50	0.50
Weight ALUCOBOND®	[kg/m ²]	4.5	5.5	7.3
ALUCOBOND®plus	[kg/m ²]	6.0	7.6	N.A.

Technical Properties:

Section Modulus	Z	[cm ³ /m]	1.25	1.75	2.75
Rigidity	EI	[kNm ² /m]	1250	2400	5900
Alloy			3xxx or 5xxx series		
Temperature Resistance			-50.C to +80.C		
Linear Thermal Expansion			2.4 mm/m at 100.C C temperature difference		

Acoustical Properties:

Sound Absorption Factor	α_s		0.05	0.05	0.05
Airborne Sound Insulation Index	R_w	[dB]	25	26	27
Loss Factor	d		0.0072	0.0087	0.0138

Thermal Properties:

Thermal Resistance	$1/\Lambda = R$	[m ² K/W]	0.0069	0.0103	0.0172
Heat Transition Coefficient	U-value	[W/m ² K]	5.65	5.54	5.34

Fire Behaviour

ALUCOBOND®

The non-inflammable aluminium cover sheets protect the plastic core.

Australia:		
AS1530, part 3	- Indicative results:	
Ignitability	Index 0	
Heat evolved	Index 0	
Spread of flame	Index 0	
Smoke developed	Index 0	

Malaysia:
Approved for usage for Buildings less than 18 metres high.
Approved for all external cladding applications as per BS 476, Part 6 & Part 7

For more details in the correct application and possible limitations of these systems request for a full set of ALUCOBOND® data sheets or consult our nearest technical advisor for advice.

ALUCOBOND®plus

Singapore:
Approved for usage for all Building Groups of any height.
PSB tested, approved and listed.

Malaysia:
Approved for usage for all Building Groups of any height.

Surface Finishes

Fluorocarbon (PVDF) coating

The painted finishes of ALUCOBOND® are obtained in a continuous coil-coating process on a most modern paint line
- surface pre-treatment by chromating
- cover layers (double-coat) including primer

The stoving of the paints at temperatures from 240°C to 270°C ensures excellent durability of these surface finishes.

The whole process including a thorough quality control of the paint finishes is carried out in accordance with E.C.C.A. (European Coil-coating Association) Standards.

For exterior application, ALUCOBOND® is available in many specially selected standard colours in (PVDF) fluorocarbon lacquer coating. For details, refer to the ALUCOBOND® PVDF standard colour chart. Custom colours are available on request.

Protective Peel-off-foil

The finished surface is factory protected with a self-adhesive peel-off-foil, tested to withstand at least 6 months exposure to local weather condition without losing the original peel-off characteristic or causing stains or other damages.

Flatness

With a standard gloss of approx. 30-40% acc. to Gardner Scale, the panel surface taken individually shall not have any irregularities such as oil canning, waves, buckles and other imperfections when viewed from any position but not less than at an angle of 15 degrees to the true plane of the panel, with natural lighting of incident of not less than the same angle.

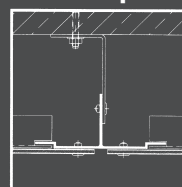
Storage

ALUCOBOND® should be stored on pallets or shelves. The stacking height should not exceed 2m. Ensure dry storage.

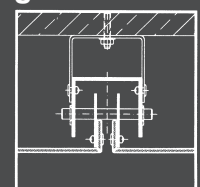
Cleaning and maintenance

The frequency of cleaning and the choice of a suitable cleaning agent depends largely on the location of the building and the condition of the panel surface. The cleaning can be carried out with water and sponge or a soft brush. In case of more severe soiling add a neutral detergent.

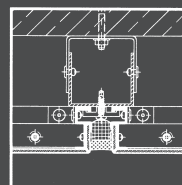
Examples of Fixing Methods



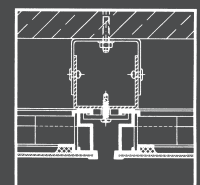
riveted system



tray panel suspended on pins



tray panel screw fixed



edge grip system



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