

ALUCOBOND®



BEYOND FACADES



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Cover: Wyndham Harbour Apartments | **Architect:** Fender Katsalidis

This Page: Katsumata Centre | **Architect:** James Deans & Associates

Opposite Page: 580 George Street | **Architect:** Nettleton Tribe





HISTORY

Originating from an ingenious, patented product idea, the unique success story of ALUCOBOND® began when the product was launched on the market in 1969. Originally used for upgrading shop buildings, transport applications and furniture construction, architects and designers soon discovered the host of advantages of ALUCOBOND® for the use in exterior architectural applications and corporate identity programs, particularly in façades, wall cladding and roof edging.

Since its first market introduction over 45 years ago, ALUCOBOND® has significantly influenced the appearance of many buildings. During these four decades, a constant development in architecture has taken place.

ALUCOBOND® has contributed towards this development and today it is a prominent feature in a large number of attractive and distinctive architectural projects around the world.

The enormous success of ALUCOBOND® is based on its excellent product qualities such as

exceptional top-grade flatness and rigidity, low weight, fire resistance, excellent formability, weather resistance, simple fabrication and ease of cleaning. In addition, a large choice of colours and a wide variety of designs offer architects and designers unlimited possibilities for creative, innovative and customised planning.

ALUCOBOND® is available in a large range of formats and the possibilities for implementing ALUCOBOND® for interior and exterior applications are extremely varied. It is used in projects ranging from the precise

construction of residential buildings, representative public buildings, company headquarters, commercial and industrial buildings to the prestigious landmarks of modern urban construction. Since all ALUCOBOND® products are fully recyclable, they are ideal for projects that highly value the use of eco-friendly materials.

In the future, ALUCOBOND® will continue to focus strongly on innovation. With new products and surfaces, we will offer new possibilities and solutions to the world of architecture.



FROM PIONEER TO INDUSTRY STANDARD

Since 1969, the original ALUCOBOND® aluminium composite material has been the most popular in the world. The innovative concepts of ALUCOBOND® have proved themselves through many years of experience, innovative developments and first-class service.

The Original

ALUCOBOND® offers architects and designers unlimited opportunities for creative, innovative and individual planning. The components can easily be fabricated and fitted on site. The wide range of interior and exterior applications are matched only by the product's versatility.

- High formability and stability
- Diversity of brilliant colours and excellent weather resistance
- Individual design and easy processing
- Lightweight and large panel sizes
- Internationally proven and recognised fire performance

The innovative concepts of ALUCOBOND® and of the honeycomb composite panel ALUCORE® have proved themselves through many years of experience, innovative developments and first-class service.

Since 1969, the original aluminium composite material has been the most popular in the world.

Comprehensive Service

The technical service teams at Alucobond Architectural support architects and building owners early in the planning stage and throughout the project lifecycle. They provide comprehensive technical information and customised advice to assist with the perfect implementation of all ideas and plans. For every project, the proven strategy to achieve a smooth completion lies in an early coordination between vision, architectural plans and the many possibilities which our unique panels give to fabricators and installers.

Our product and application expertise is the fastest and safest way to success, whether it be for buildings, renovation projects or interior and exterior applications.

Worldwide

The close co-operation between the Alucobond Architectural team and ALUCOBOND® worldwide allows us to continue to be at the forefront of technology and provide Australian architects and designers with the most current and up to date design trends.

Regardless of where the project is physically located, the ALUCOBOND® team and its partners ensure quick and professional onsite service.

The worldwide success of ALUCOBOND® speaks for itself. Never compromise when it comes to quality and experience. Your nearest fabricator will provide a tailor-made solution that will stand the test of time.

Fabrication Centres

For over 40 years, qualified, independent fabricators and installers have become firmly established, offering professional service to the building industry. They have acquired in-depth knowledge in the processing of ALUCOBOND® and their skilled personnel and specialised processing equipment ensure that your project is completed on time and within budget.

Why use ALUCOBOND®?

- ALUCOBOND® is the original and the world's most widely recognised aluminium composite material.
- Manufactured since 1969, by the world's largest and longest established aluminium composite producers.
- ALUCOBOND® has a factory applied coil coated Fluoropolymer (PVDF or FEVE) paint finish; recognised and proven worldwide as the best architectural coating available today for all climatic and environmental conditions.
- ALUCOBOND® is very cost effective, even in the most complex situations.

- Since 1976, numerous prestigious projects have been carried out in Australia using ALUCOBOND®.
- CodeMark Certified for complete compliance with fire requirements of the BCA.

Colours

Available in over 46 standard and specialty colours and finishes. The majority of which are kept in stock in our Distribution Centres throughout Australia.

Wide range of sizes

ALUCOBOND® is available in a wide range of sheet sizes and thicknesses.

Features & applications

ALUCOBOND® is lightweight, extremely flat and rigid.

ALUCOBOND® has excellent vibration dampening characteristics.

ALUCOBOND® can be bent, curved or shaped to any required angle.

ALUCOBOND® can be used as a fascia, as a cladding panel, for interiors or signage.

ALUCOBOND® is ideal to fit into any curtain wall system.

Prompt delivery

Substantial stocks of ALUCOBOND® are kept at our Distribution Centres in Melbourne, Sydney, Brisbane, Adelaide and Perth.

Technical support

Free technical support and backup is available.

Email: technical@alucobond.com.au

Phone: 1300 881 712.

Australia's most popular aluminium composite material; only available from Alucobond Architectural.



Perth Arena | Architect: ARM Architecture /CCN Architects

MODERN APPEAL

The unsurpassed finish and flatness of ALUCOBOND®, its dynamic range of colours and exciting shapes allow the designer complete freedom of creativity. Lightweight yet strong, ALUCOBOND® is the ultimate material for creating a striking first impression.

High Rise

Whether you are cladding a new building or refurbishing an old one; there is no doubt that the long-lasting appeal of the contemporary finish, unparalleled durability and flexibility of application makes ALUCOBOND® an outstanding choice. The means for creating a striking landmark in any location regardless of aspect or challenging environmental factors demonstrates the flexibility and variety ALUCOBOND® offers.

Low Rise

Smaller structures, new or old, commercial or domestic, benefit equally from the ALUCOBOND® promise...a building that says "today and for the future".

Public Buildings

Public offices, healthcare, education facilities and civic centres demand a highly functional yet attractive solution for exterior and interior cladding. The wide array of colours, shapes and textural

detail allows ALUCOBOND® to answer the call for a modern and efficient finish that will enhance the overall appeal of the dynamic urban setting.

Style

Realise decades of architectural individuality and classic styling with ALUCOBOND® aluminium composite material.

The unsurpassed finish and flatness of ALUCOBOND®, its dynamic range of colours and exciting shapes allow the designer complete freedom of creativity. Lightweight yet strong, ALUCOBOND® is the ultimate material for creating a striking first impression, with the durability to retain its sleek good looks, long after other methods lose their lustre.



Coastal Dreamer | Simon Martin Building Design

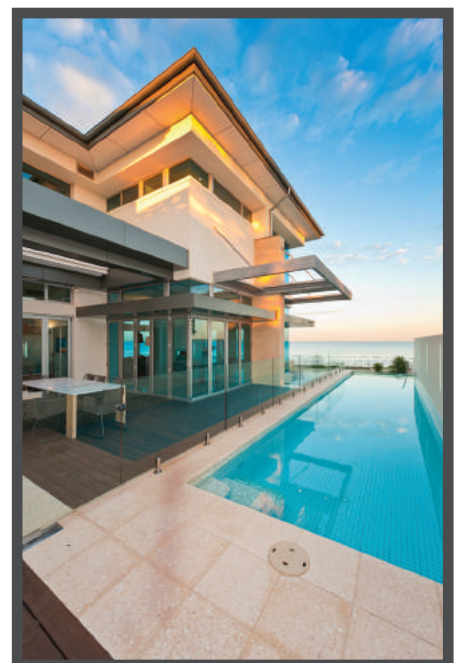
RESIDENTIAL APPLICATIONS

Whilst ALUCOBOND® may have started life as a façade of choice for commercial architecture, architects saw very quickly how ALUCOBOND® could work with residential design and so began the amazing transformation of contemporary aesthetics with residential design.

Property owners and architects alike seek to continually challenge the status quo of residential projects using interesting surface finishes, combined with unusual architectural features and forms.

Adding distinctive style to a suburban residence is now possible with ALUCOBOND® aluminium cladding, which allows almost unlimited scope to create the ultimate dream home. ALUCOBOND® has allowed architects

to create façades that were never thought possible for residential architecture. The possibilities now seem as endless as a creative mind allows.





CORPORATE IDENTITY

Offering a wide range colour palette, limitless design opportunities and availability of custom corporate colours, ALUCOBOND® is the ideal product for corporate branding. For these reasons, Australia's most trusted brands choose ALUCOBOND® composite material for their corporate identity.

ALUCOBOND® is the ideal material to create and maintain your corporate image. Unlike other alternatives, ALUCOBOND® incorporates attributes such as long term colour consistency and weather resistance, excellent flatness, rigidity and formability, as well as ease of maintenance.

With low maintenance, unmatched strength to weight ratio and CodeMark

compliance, major organisations such as Priceline, Puma Fuels, Beurepairs, Australia Post, Mecca Maxima, CBA, and Hyundai use ALUCOBOND® for their institutional branding Australia wide.

ALUCOBOND® offers a tailor-made solution for every project, in terms of exclusive colours, eye-catching details, unusual shapes or innovative surface

contours.

Alucobond Architectural

Our dedicated corporate identity managers, quality European product and warehousing capability sets us above the competition. Alucobond Architectural has a proven history of facilitating smooth supply programs for large corporate rollouts.



MODERN REFURBISHMENT

ALUCOBOND® offers an instant update to any building facade by transforming aged, tired or dated designs into new contemporary structures with striking appeal. A popular choice with building owners, ALUCOBOND® is ideal for retrofitting existing buildings.

After years of constant use and the ongoing effects of our harsh environment, many existing structures now exhibit stained concrete, cracked masonry, failing render and other time-related problems.

Inevitably, this adversely affects aesthetics and market value.

The most efficient and effective way to restore exterior surfaces and protect asset value is with

ALUCOBOND®. The combination of surface finishes, colour options, durability and flexibility of ALUCOBOND®, all contribute to the modernisation of any building and create a dramatic transformation.

ALUCOBOND® offers outstanding protection from the weather and will withstand the effects of industrial pollution. ALUCOBOND® is an energy efficient and cost effective method of contemporary renovation.



Inset Before

Top After | Air Apartments | Architect Tectvs Architects

PRODUCT RANGE

ALUCOBOND® PLUS

Thickness: 3 mm / 4 mm / 6 mm

| Width [mm] | 1000 | 1250 | 1500 | 1575 | 1750 |
|------------------------|-------------|--------------|--------------|--------------|--------------|
| Length [mm] | 2000 – 6800 | 2000 – 11000 | 2000 – 11000 | 2000 – 11000 | 2000 – 11000 |
| Solid Colours | ● | ● | ● | ● | ● |
| Metallic Colours | ● | ● | ● | ● | ● |
| Special Effect Colours | ● | ● | ● | ● | ● |
| Spectra Colours | ● | ● | ● | ● | - |
| NaturAL | - | ● | ● | - | - |
| Anodized Look | ● | ● | ● | ● | - |
| Anodized* | - | ● | - | - | - |
| Terra | - | ● | ● | - | - |
| Urban | - | ● | ● | - | - |

*Available in 2000mm wide

ALUCOBOND® A2

Thickness: 3 mm / 4 mm / 6 mm

| Width [mm] | 1000 | 1250 | 1500 | 1575 | 1750 |
|------------------------|-------------|--------------|--------------|--------------|--------------|
| Length [mm] | 2000 – 6800 | 2000 – 11000 | 2000 – 11000 | 2000 – 11000 | 2000 – 11000 |
| Solid Colours | ● | ● | ● | ● | ● |
| Metallic Colours | ● | ● | ● | ● | ● |
| Special Effect Colours | ● | ● | ● | ● | ● |
| Spectra Colours | ● | ● | ● | ● | - |
| NaturAL | - | ● | ● | - | - |
| Anodized Look | ● | ● | ● | ● | - |
| Anodized* | - | ● | - | - | - |
| Terra* | - | ● | ● | - | - |
| Urban | - | ● | ● | - | - |

ALUCOBOND® PE

Thickness: 3 mm / 4 mm / 6 mm

| Width [mm] | 1000 | 1250 | 1500 | 1575 | 1750 |
|------------------------|-------------|--------------|--------------|--------------|--------------|
| Length [mm] | 2000 – 6800 | 2000 – 11000 | 2000 – 11000 | 2000 – 11000 | 2000 – 11000 |
| Solid Colours | ● | ● | ● | ● | ● |
| Metallic Colours | ● | ● | ● | ● | ● |
| Special Effect Colours | ● | ● | ● | ● | ● |
| Spectra Colours | ● | ● | ● | ● | - |
| NaturAL | - | ● | ● | - | - |
| Anodized Look | ● | ● | ● | ● | - |
| Anodized* | - | ● | - | - | - |

Other specifications available upon request

Available stock in Australia

For available colours and sheet sizes refer to our National Range List.

Other surfaces on request:

- Both sides Mill-Finish
- Both sides Stove-Lacquered
- Both sides Clear Anodized

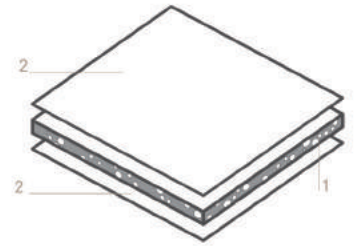
Dimensional tolerances (rounded)

Thickness mill finish resp.
stove lacquered $\pm 0.2\text{mm}$

Width $-0/+4\text{mm}$

Length 1000-4000mm $-0/+6\text{mm}$
4001-8000mm $-0/+10\text{mm}$

ALUCOBOND® PLUS

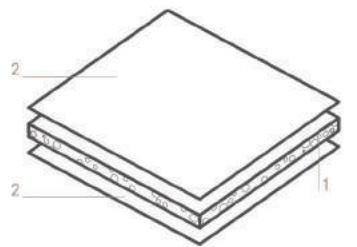


1 Mineral filled core

2 0.5 mm aluminium

Hardly inflammable
according to EN13501-1

ALUCOBOND® A2

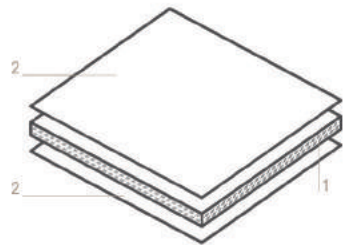


1 Mineral core

2 0.5 mm aluminium

Non-combustible
according to EN13501-1

ALUCOBOND® PE



1 Virgin Polyethylene-core

2 0.5 mm aluminium

Normal flammability

ALUCOBOND® is produced in a continuous and fully automated process; this process introduces dimensional tolerances and factory edges that require the panels to be trimmed on all 4 edges prior to installation. 3A Composites and Alucobond Architectural do not recommend installation of untrimmed ALUCOBOND® panels.

Transport and industry

Dibond

The light-weight and rigid composite material is ideal for large signage applications, architectural signs, display and exhibition, POS / POP display, digital & screen printing, photo mounting, interior design, industry and transport.

Alucore

Based on the principles of nature, ALUCORE® is an aluminium honeycomb core composite material with high rigidity and extremely low weight. It is designed for high wind load applications and/or where large unsupported spans are required.

THE PRODUCT

ALUCOBOND® has been developed as a rigid, yet flexible façade material for architectural uses. ALUCOBOND® is extremely weatherproof, impact-resistant, unbreakable and ensures easy and fast installation. ALUCOBOND® is produced in a continuous lamination process and comes in various core thicknesses; with 4mm being the standard option in Australia. All painted panels are supplied with a protective peel-off foil.

Colours

ALUCOBOND® is now available in 30 standard colours, 34 specialty surfaces including Spectra, Sparkling, Anodized Look, NaturAL, Urban Design, Terra and Legno. Custom colours are available on request.

The fluoropolymer (PVDF or FEVE) coating is applied to the aluminium coil prior to lamination into a composite material, using a continuous coil coating process, which is based on the latest technology. The multiple layers are individually stoved at temperatures of between 200-260°C.

The quality of the coating is tested according to standards established by E.C.C.A (European Coil Coating Association) of which 3A Composites is a member. Fluoropolymer (PVDF or FEVE) coating systems combine good formability and excellent surface durability. They are extremely resistant against weathering, strong solar radiation and pollution attack.

Due to different production processes being applied for ALUCOBOND® PLUS and ALUCOBOND® A2, slight colour variations may occur between different products. If colour consistency is required do not mix different products.

PVC Tapes

The application of PVC type tapes, Silicone or Polyurethane sealants to the PE protective foil or directly to the painted surface of ALUCOBOND® is not recommended. Plasticisers and/or solvents contained within these products could affect the painted surface resulting in a localised change in gloss level.

Solid Colours

No matter whether a soft white or a vibrant red is selected, solid colours are always a good choice when a uniform appearance without special effects is required. The gloss of solid colours is between 30-40% according to Gardner scale.

Metallic Colours

The different appearance of colour and gloss under various light conditions and viewing angles gives these surfaces a vivid impression and brings them to life. The gloss of metallic colours is between 30-40% according to Gardner Scale.

Special Effect, Spectra Colours & NaturAL Finishes

These eye-catching finishes are applied using the same coil coating process and are the result of continuous development of new paint systems and provide evidence of 3A Composites's know-how and competency in the latest coating technology. Unless specified, the gloss level of these specialised finishes are between 70 - 80% according to Gardner Scale.

Anodized Look & Urban Design

The Anodized Look range combines high quality paint performance with a smooth, low gloss appearance to provide a naturally striking finish.

Offering an extremely matt surface, the all new Urban Design range provides a contrasting option to higher gloss surfaces, enabling a variety of effects on your next project.

Utilising the same coil coating processes, the gloss level of the Anodized Look and Urban Design is between 10-15% according to the Gardner Scale.

Terra Colours

Stone and crystal stand for endurance, authenticity and intrinsic value. They reflect light in a magical, vibrant way and their texture is unexpectedly varied: ranging from rough to smooth. ALUCOBOND® terra is inspired by iridescent stone. The decor's surface refracts the daylight creating a matt sheen and lustrous hues, sometimes elegant and sometimes earthy. ALUCOBOND® terra unites the typical crystalline surface and velvety feel found in natural stone with many of the advantages of ALUCOBOND® composite panels.

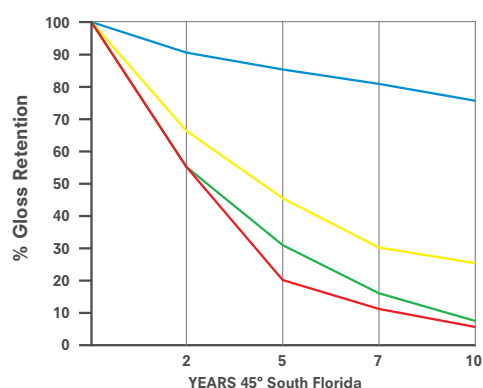
Legno

ALUCOBOND® with the natural beauty of wood and the outstanding features of ALUCOBOND® aluminium composite materials to enhance the design of your architectural project.

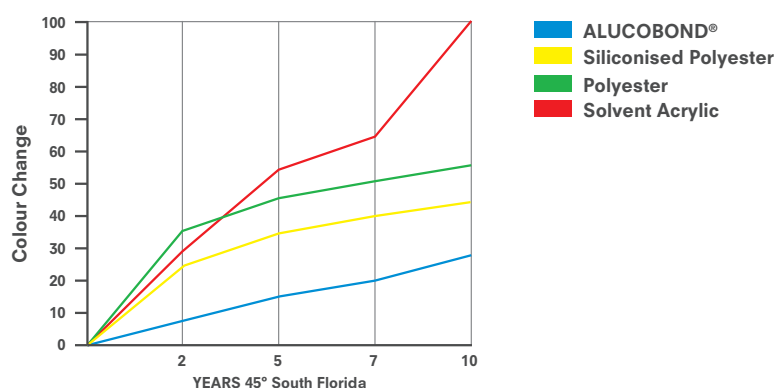
ALUCOBOND® Design

Individual design, tailored to your needs, can from now on be realised on the proven ALUCOBOND® panels. The ALUCOBOND® design collection gives a glimpse into what is possible with this new and innovative product. This inspirational collection includes Art / Fashion, 3D Effect, Stone / Natural, Carbon, Concrete and Wood.

GLOSS RETENTION



COLOUR CHANGE



ALUCOBOND® TECHNICAL DATA SHEET

| Alucobond Type | | | Alucobond PLUS | | | Alucobond A2 | | | Alucobond PE | | | |
|--------------------------|------------|-------------------|--|--------|------|---------------------|------|------|--------------|------|------|------|
| Panel Thickness | Standard | Unit | 3mm | 4mm | 6mm | 3mm | 4mm | 6mm | 3mm | 4mm | 6mm | |
| Aluminium Skin Thickness | | mm | 0.5 | | | | | | | | | |
| Core | | | 70% Mineral Filling | | | 93% Mineral Filling | | | Virgin LDPE | | | |
| Weight | | kg/m ² | 5.9 | 7.6 | 10.8 | 5.9 | 7.6 | 10.8 | 4.5 | 5.5 | 7.3 | |
| Section Modules | Z | DIN53293 | cm ³ /m | 1.25 | 1.75 | 2.75 | 1.25 | 1.75 | 2.75 | 1.25 | 1.75 | 1.75 |
| Rigidity | EI | DIN53293 | KkNcm ² /m | 1250 | 2400 | 5900 | 1250 | 2400 | 5900 | 1250 | 2400 | 5900 |
| Modulus of Elasticity | EI | EN1999 1.1 | MPa | 70,000 | | | | | | | | |
| Alloy | EN573.3 | | EN AW 5005A (AlMg1) | | | | | | | | | |
| Temper | EN515 | | H22/H42 | | | | | | | | | |
| Tensile Strength | EN485.2 | MPa | Rm =>130 | | | | | | | | | |
| 0.2% Proof Stress | EN485.2 | MPa | Rp0.2 => 90 | | | | | | | | | |
| Elongation | EN485.2 | % | A50 => 5 | | | | | | | | | |
| Linear Thermal Expansion | EN1999 1.1 | | 2.4mm/m at 100°C temperature difference | | | | | | | | | |
| Finish | | | Coil Coated Fluoropolymer (PVDF or FEVE) | | | | | | | | | |
| Gloss | EN13523.2 | | Finish Dependant - Standard = 30 - 40% up to 80% | | | | | | | | | |
| Pencil Hardness | EN13523.4 | HB - F | | | | | | | | | | |

Acoustic Properties

| Sound Absorption factor α_{av} | | ISO 354 | | 0.05 | | | | | | | | |
|---------------------------------------|-------|--------------|----|------|----|-------|-------|----|--------|--------|--------|----|
| Sound Transmission Loss | R_w | EN ISO 140.3 | dB | 27 | 27 | 27 | 27 | 27 | 27 | 25 | 26 | 27 |
| Loss Factor | d | EN ISO 6721 | | | | 0.004 | 0.005 | | 0.0072 | 0.0087 | 0.0138 | |

Thermal Properties

| | | | | | | | | | | | | |
|------------------------------|-----------|-----------|--------------------|---------------------------|-------|--------|---------------------------|-------|-------|---------------------------|--------|--------|
| Thermal Resistance | R | DIN 52612 | m ² K/W | 0.006 | 0.009 | 0.0151 | 0.002 | 0.003 | 0.005 | 0.0069 | 0.0103 | 0.0172 |
| Thermal Conductivity | λ | DIN 5261 | W/mK | 0.33/mm thickness of core | | | 1.00/mm thickness of core | | | 0.29/mm thickness of core | | |
| Heat Transition Co-efficient | U | DIN 4108 | W/m ² K | 5.68 | 5.58 | 5.34 | 5.83 | 5.80 | 5.71 | 5.65 | 5.54 | 5.34 |
| Temperature Resistance | | | °C | | | | -50 up to +80 | | | | | |



FABRICATION

FOR FURTHER TECHNICAL DATA, CALL YOU LOCAL ALUCOBOND® SPECIALIST



Cutting

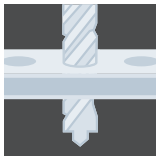
ALUCOBOND® can be cut with a vertical panel saw, circular or jig saw. For information relating to tool geometry, cutting speed and feed rates refer to Processing & Technical Data brochure.



Shearing

Shearing can be done with a guillotine. To prevent surface damage, use protective pads between down-holders and ALUCOBOND® surface and adjust to minimum down holding pressure. Use carpet protection on feeder table.

Do not use ball supports as they damage the ALUCOBOND® surface. Shearing will cause a slight deflection of the cut edge on the impact side.



Drilling

ALUCOBOND® can be drilled with twist drills normally used for aluminium and plastics on machines common for metals. Drill material: High-speed steel (HSS) We recommend metal drills with centre-point.



Roll Bending

ALUCOBOND® can be bent using a roll bending machine (pyramid or pinch rollers). To protect the surface finish of ALUCOBOND® during bending use only polished rollers free of dents and other defects.



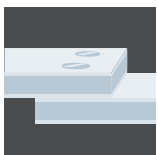
Riveting

Riveting is possible using solid or blind rivets with conventional riveting tool. For exterior applications allow for thermal expansion and possible building movements.



Contour cutting

ALUCOBOND® can be cut to shape using CNC machining centres, water jet cutting machines, copy routers and jig saws.



Screwing

Use conventional wood, sheet-metal or machine screws made of stainless steel. For exterior applications allow for thermal expansion and possible building movements.



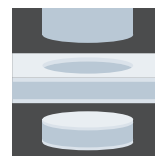
Clamping

With serrated cornerjoint or butt-joint sections or clamped between special aluminium extrusions.



Welding

The plastic core of ALUCOBOND® can be hot-air welded using conventional hot-air welding equipment and plastic filler rod. Hot-air welding provides a water-tight joint for decorative purpose only. It is not suitable for joints where structural strength is required.



Punching

ALUCOBOND® can be punched using conventional sheet metal punching machines or manual notchers. For clean cuts use sharp tools and dies with minimal cutting clearance. Punching will cause a slight deflection of the cut edge on the impact side.



Bonding

For exterior use and structural applications:

- Double-sided structural bonding tapes

For interior applications:

- Metal adhesives
- Double-sided structural bonding tapes

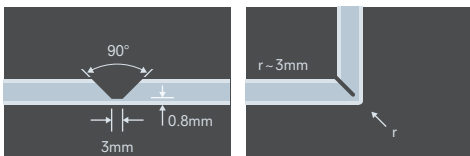
Adhesives and sealants do not adhere to the plastic core. Apply to the aluminium cover sheet only. Consult sealant manufacturer for correct application.



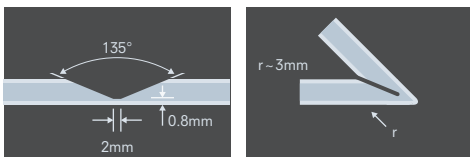
Bending

Bending is possible with a folding table or a bending press. To protect the surface finish of ALUCOBOND® during bending use padding strips. The springback of

ALUCOBOND® is greater than that of a solid aluminium sheet. To determine spring-back for serial production, make tests on sample panels.



90° V-groove for folds up to 90°



135° V-groove for folds up to 135°

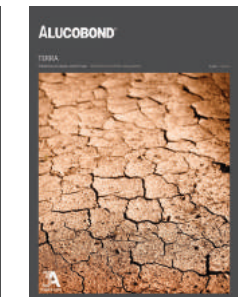
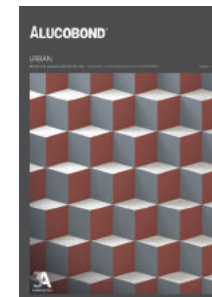
Routing & Folding

ALUCOBOND® composite material can be shaped using a very simple processing method. The technique, called the routing and folding method, enables a fabricator to produce shapes of various kinds and sizes. A V-shaped or rectangular groove is routed on the reverse side of the ALUCOBOND® composite material using a disk or end milling cutter.

A thin layer of the core material should be left at the base of the groove, i.e. on the inside of the outer cover sheet. The untouched outer cover sheet can now be bent manually, giving an exact and clean folding line which follows the routed groove. The outer radius of the folded edge depends on the shape of the groove and its depth.

The routing can be done using a vertical panel saw equipped with ALUCOBOND® grooving accessories, a CNC machining centre, a portable sheet milling machine or a hand router. The routing and folding method can be used for ALUCOBOND® composite material with all available standard surface finishes.

For information relating to tool geometry, cutting speed and feed rates for ALUCOBOND®, refer to Processing & Technical Data brochure.



Surfaces

ALUCOBOND® surfaces are coated using exclusively high-quality and eco-friendly lacquer systems.

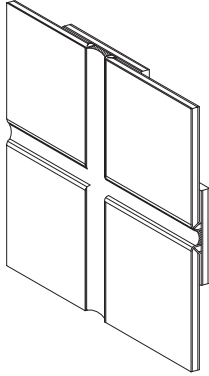
They are highly weather resistant and resistant to industrial emissions. These properties are achieved using UV-resistant bonding agents. For standard finishes, fluoropolymer top coats (PVDF & FEVE) are used. All surface coats are applied in a continuous coil-coating

process, i.e. with a continuous coating and stove-lacquering procedure.

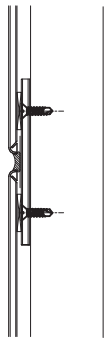
The quality of the coating is tested according to standards established by E.C.C.A. (European Coil Coating Association), of which 3A Composites are a member.

CONSTRUCTION

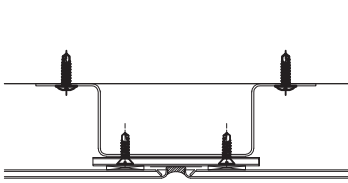
ALUCOBOND® Flat Stick Method



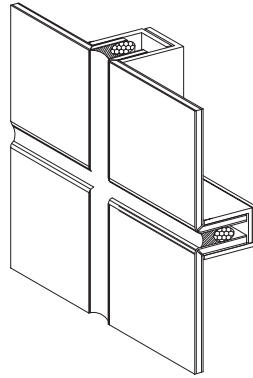
Vertical Section



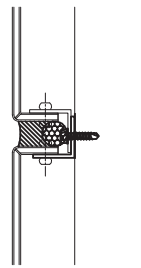
Horizontal Section



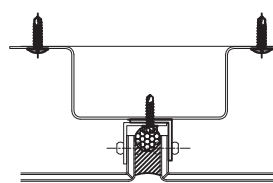
ALUCOBOND® Fixed Cassette System



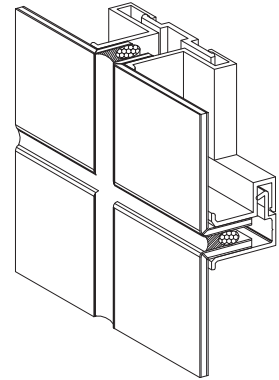
Vertical Section



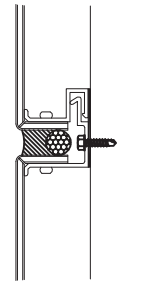
Horizontal Section



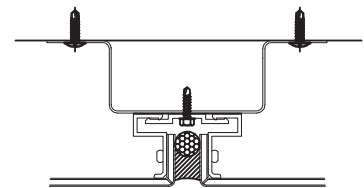
ALUCOBOND® Alucofix System



Vertical Section



Horizontal Section

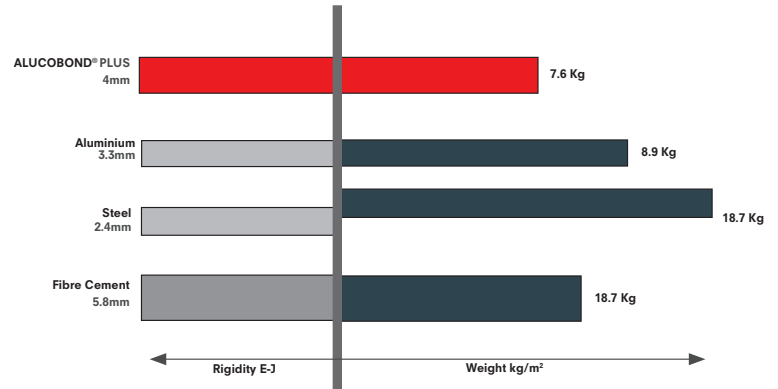


STRUCTURAL BEHAVIOUR

Comparison of the thickness and panel weight with equal rigidity

The composite structure of ALUCOBOND® – two aluminium cover sheets and a plastic or mineral filled core – results in an impressive strength-to-weight ratio, even when comparing large panel sizes.

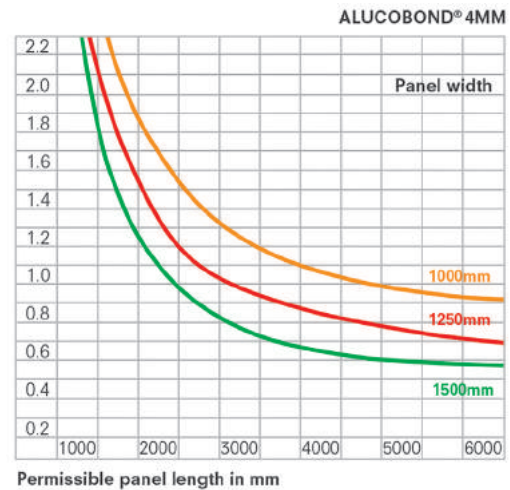
Even though the panels are very lightweight, which makes them easy to transport and handle in the factory and on site, they are highly rigid and strong, thus making the most suitable for exterior wall cladding. When properly designed and installed, ALUCOBOND® panels will keep their shape and remain flat for life, even when exposed to extreme temperature changes.



Wind load and permissible panel sizes

The graph for 4mm thick ALUCOBOND® indicate the maximum permissible panel length without having to add a stiffener based on applicable design wind load and panel width.

- Permissible design stress =55 MP, safety factor 1.65 is taken into account.
- Values apply to 4-side supported panels.
- Values for other systems upon request.



INTERNATIONAL FIRE CLASSIFICATIONS

| | ALUCOBOND® PLUS | | ALUCOBOND® A2 | | ALUCOBOND® PE | |
|--------------------------|--|--|--|--|--|--|
| Country | Classification | | Classification | | Classification | |
| Australia | AS ISO 9705 EN 13501.1 NFPA 295 BS8414 | Group 1 Material B-s1-d0 Pass Pass | AS ISO 9705 EN 13501.1 | Group 1 Material A2-s1-d0 | | |
| EU | EN 13501-1 BS8414 | Class B, s1, d0 Pass | EN 13501-1 | Class A2, s1, d0 | EN 13501-1 | Class D |
| Germany | DIN EN 13501-1 DIN 4102 Part 7 (VDIN ENV 1187) | Class B, s1, d0 passed | DIN EN 13501-1 | Class A2, non-combustible | DIN 4102-1 DIN 4102 Part 7 (VDIN ENV 1187) | Class B2 passed |
| Austria | ÖNORM EN 13501-1 | Class B, s1, d0 | ÖNORM A3800 ÖNORM EN 13501-1 | Class A Class A2, non-combustible | ÖNorm A 3800 ÖNorm B 1301-1 | Class B1, TR1, Q1 Class D |
| Switzerland | VKF | Class 5.3 | VKF | Class 6q.3, non-combustible | VKF | Class 4.2 |
| France | NF P 92-501 | Class M1 | NF P 92-501 | Class M0, non-combustible | NF P 92-501 NF F 16-101 | Class M1 Class F0 |
| Italy | | | CSE RF 1/75/A, RF 3/77 | Class 1 | CSE RF 2/75/A, RF3/77 | Class 1 |
| British Standards | BS 476, Part 6 BS 476, Part 7 BS8414 | Index $I \leq 12$ $i \leq 6$ Class 1 Therefore meets Class 0 (National Building Regulations) Pass | BS 476, Part 6 BS 476, Part 7 | Index $I \leq 12$ $i \leq 6$ Class 1 Therefore meets Class 0 (National Building Regulations) | BS 476, Part 6 BS 476, Part 7 | Index $I \leq 12$ $i \leq 6$ Class 1 Therefore meets Class 0 (National Building Regulations) |
| Singapore | Approved for any type of external wall cladding without restriction in height. | | Approved for any type of external wall cladding without restriction in height. | | Approved for external wall cladding up to 10 m height. | |
| Republic of Korea | | | | | KSF 2257 | Passed 30min heating time (in combination with rock wool and gypsum board) |
| USA | ASTM-E 84 NFPA 285 | Class A passed | ASTM E-84 | UBC Class 1 | | |

REINFORCING FIRE SAFETY IN AUSTRALIA

Fire protection for your building begins at the planning stage. Minimising fire risk, particularly in places with significant human traffic such as commercial offices, major sporting arenas, hospitals, schools, apartments and high rise buildings has become increasingly complex and challenging.

Globally, suppliers, architects and building owners have a 'duty of care' and are required to meet the stringent regulations aimed at protecting the building structure, surrounding environments and more importantly the inhabitants or visitors to the building.

When making your product and system selection, it's imperative that you fully understand the product that you are looking to choose and ensuring that it is actually safe.

As a trusted supplier, Alucobond Architectural has and continues to provide the knowledge, technology and compliance required to assist you in your selection process. Safety is paramount and we aim to ensure you are kept up to date with correct information and are offered products that are best suited to your project needs.



Fire Behaviour - Australian Fire Classification

ABCB CodeMark
Certification
Cert No. GM CM 30070



Technical Support | Contact: technical@alucobond.com.au

Above | Calibre Apartments

Architect | Interlandi Mantesso Architects

USEFUL INFORMATION

Naturally ALUCOBOND®

During the life cycle of ALUCOBOND® composite material, no substances containing CFC, VOC's are set free at any time. The core material does not contain any nitrogen, chlorine or sulphur. Therefore, selecting ALUCOBOND® for projects which require environmentally friendly materials is a natural choice.

Environment, Health & Safety

For ALUCOBOND®, effective, continuous environmental protection is a main priority. It is of utmost importance to preserve natural resources in order to ensure a livable tomorrow for future generations.

It commits itself to continuous self-improvement programmes for environmental protection, many of which go above and beyond government regulations. It is also in this area that ALUCOBOND® strives to be a leader in its field. All Alucobond finishes are RoHS Compliant, and contain no Lead, Mercury, Cadmium or Chromium.

3A Composites were one of the first companies to develop its own environmental management system, which is regularly audited by independent auditors. The successful certification according to EN ISO 14001 speaks for itself.

Recycling

ALUCOBOND® can be fully recycled, ie. Both the core material and aluminium skins can be recycled and reused for the production of new material.

Storage / Handling

- Protect ALUCOBOND® pallets during storage against rain, seeping in of moisture and condensation.
- Only pallets of identical size should be stacked, with a maximum of 6 pallets stacked on top of each other.
- Avoid storing the product for more than 6 months, as it may become difficult to remove the protective foil.
- When stacking the panels, nothing should be placed in between them, as this could produce marks on the panels.

Installation

To avoid possible reflection differences (for Metallic, Special Effect, NaturAL, Terra, Spectra, Urban and Legno surfaces), it is recommended to install the panels in the

same direction as marked on the protective peel-off foil. Colour variations may occur between panels originating from different production batches. To ensure colour consistency, the total requirement for a project should be placed in one order.

Protective Foil

To avoid glue residuals on the surface of the panels due to UV radiation, it is recommended to remove the protective foil as soon as possible after the installation. The protective foils and the panel surfaces must not be marked using ink (marker), adhesive tapes or stickers, as the lacquered surfaces could be damaged by solvents or plasticisers. Make sure to remove the protective foil as soon as possible after installation as prolonged exposure to the elements could make the foil difficult to remove.

Cleaning and Maintenance

Regular cleaning by companies qualified and experienced in the cleaning and maintenance of building façades not only maintains the aesthetic and representative finish of stove lacquered surfaces but also preserves their value and service life by removing dirt and aggressive deposits that are not washed away by rainwater.

Cleaning Cycle

The ALUCOBOND® panels should be cleaned on a regular basis. Generally, once a year is sufficient to maintain the painted surface in optimum condition, however this will be dependent on the location of the building and the amount of dirt and airborne pollutants in that area.

For façades close to a marine environment or areas subject to exposure to severe industrial or chemical airborne pollutants, a more regular cleaning regime should be adopted to avoid the accumulation of salt, industrial or chemical pollutants on the painted surface.

Maintenance Logs should be maintained to record cleaning schedules, procedures, cleaning agents used, and any visible change in the panel surface finish.

Warranty

ALUCOBOND® stands for high quality and longevity. Warranties according to the product specification and approved field of application can be obtained upon request.



Top | Mona Pavilion Hotel
Architect | Fender Katsalidis/Antartica Architects

Above | Yarras Edge, Docklands
Architect | Wood Marsh Architects

Create the difference.
ALUCOBOND®



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Derrimut VIC 3030
Tel: (03) 9394 3130

QUEENSLAND:

128-132 Mica Street
Carole Park QLD 4300
Tel: (07) 3718 2360

SOUTH AUSTRALIA:

57-63 Barnes Avenue
Marleston SA 5033
Tel: (08) 8113 6000

NEW SOUTH WALES:

29 Henderson Street
Turrella NSW 2205
Tel: (02) 9508 4600

WESTERN AUSTRALIA:

72 Bushland Ridge
Bibra Lake WA 6163
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ALUCOBOND® is manufactured by 3A Composites GmbH, 78224 Singen / Germany

Exclusively distributed in Australia by Halifax Vogel Group Pty Ltd



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