

# ALUCOBOND® DIBOND®

## SHOWING IDENTITY

Innovative, contemporary corporate architecture

English





# ONLY THOSE WHO **SEE THE** INVISIBLE CAN DO THE **IMPOSSIBLE**

## **BUILDING THE IMAGE**

Conveying corporate identity internally and externally is multi-faceted: ranging from façades, canopies and totems to interior design, store fittings and signage.

No matter how multi-faceted corporate architecture is, the challenge facing companies, and the architectural offices and design agencies they commission, is sustainable implementation. Communicating brand values and the associated lifestyle over an extended period of time and all around the world is corporate architecture's task. It must respond with holistic and integrative answers on ecological, economic and social questions.

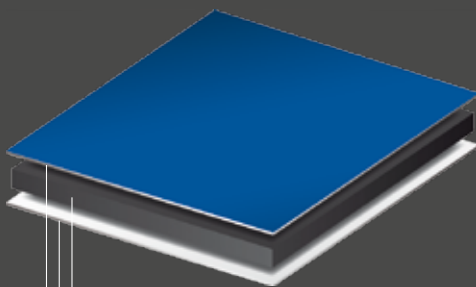
Working closely with you, we have been dealing with these issues by offering a complete range of products for your CID-programme, from composite panels through to rigid sheet material.

ALUCOBOND®, DIBOND®, FOREX®, KAPA® und SMART-X® stand for long-lasting colour fidelity and brilliance, excellent dimensional stability, easy processing and cost effectiveness. Giving you scope to implement your creative ideas.

# ALUCOBOND® – CREATE THE DIFFERENCE

Original ALUCOBOND® has been one of the most successful image building corporate architecture materials worldwide since 1969. Used for applications such as cladding, totems or canopies, ALUCOBOND® offers architects and designers unlimited freedom for creative, innovative and individual planning. Thanks to the huge colour- and surface variety, availability in every company-specific colour, colour brilliance and guaranteed durability ALUCOBOND® is the premium product for a uniform worldwide brand presence.

ALUCOBOND® has been used to create unique projects communicating values, reference points and experiences in a three-dimensional, spatial and emotional manner. At the same time, it offers sustainability and cost-efficiency at an affordable price.



Polyethylene, LDPE-type or mineral filled polymer (flame-retardant or non-combustible)

0.5 mm aluminium

Characteristics	Benefits
Light, high bending stiffness, outstanding flatness (4 mm ALUCOBOND® is only about half the weight of 3.3 mm solid sheet material with the same bending stiffness)	Substructure and fasteners are inexpensive, easy to handle on construction sites, easy transportation
Wide range of colours	Planning and design freedom
Consistent colour quality and layer thickness	Uniform brand presence worldwide
Very high corrosion/weather resistance due to PDVF-coating and the special AlMg1 alloy	Guaranteed durability; improved dirt resistance
Vibration-damping	no sound-absorbing layer (anti-drum coating) necessary
Easy to fold and bend	Easy processing with standard tools and procedures
Large formats up to 2050 mm width	Short installation time, fixed deadlines, low costs

Chic – large scale façade in ALUCOBOND® blue 5011 for Peugeot.  
Fabricator: Tecno Soluzioni

Noble façade in ALUCOBOND® silver metallic and smoke silver metallic at Audi.  
Fabricator: Tecno Soluzioni





During the life cycle of ALUCOBOND® composite panels, no environmentally hazardous substances are released at any time. The material is free of CFCs and completely recyclable. All lacquer formulations used contain no heavy metals according to RoHS and REACH. Used as a rear-ventilated façade, ALUCOBOND® considerably enhances a building's energy audit. High quality standards and longevity underpin the policy of ecological and sustainable architecture. A comparison according to ISO 14040 showed that the life cycle assessment of ALUCOBOND® is on a par with pure aluminium and fibre cement material. The test was carried out on a one-square-metre advertising banner with regard to waste factors, eco-indicators, CO<sub>2</sub> emission and primary energy consumption.

# DIBOND® – QUALITY MEETS DESIGN

DIBOND® was specially developed as the world's first aluminium composite material for the display and signage markets: ranging from CI-signage, shop-fronts, canopies, totems, interior signage and shop fitting applications. With the wide range of high-quality surfaces, easy processing and longevity, DIBOND® provides the liberty you need for communicating your company's unique identity.

This means you can create the ideal atmosphere for successful customer communication and a unique, integrated design, one that conveys your brand value to customers.

Characteristics	Benefits
Light, high bending stiffness, outstanding flatness (3 mm DIBOND® is only about half the weight of 2.4 mm solid sheet material with the same bending stiffness)	Substructure and fasteners are inexpensive, high quality appearance for signage, shop fronts and interior design
Wide range of colours	Planning and design freedom; unique and strong corporate branding
High corrosion/weather resistance due to the special AlMg1 alloy and the black core as an UV-blocker	Unproblematic use for exterior applications
Consistent colour quality and layer thickness. Coating has been specially developed for screen printing / direct digital printing and application of adhesive films	Colour brilliance and optimised long-term performance (also for exterior applications)
Easy bending, milling, painting, laminating and printing	Easy processing with standard tools and procedures

Exclusive – AmericanSwiss shopfront with direct printing on DIBOND® jet black.

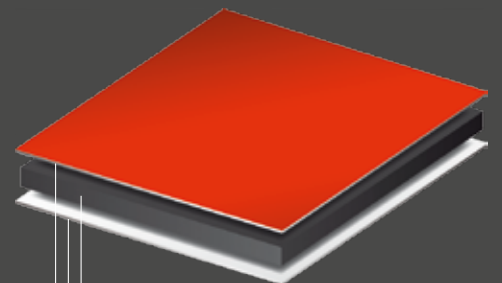
Effective – The MAN company logo in DIBOND® mirror.

Characteristic – a Vodafone shopfront in DIBOND® traffic red.



DIBOND®-panels are free of heavy metal according to RoHS and REACH. A technical procedure separates and processes the valuable raw materials (aluminium and polyethylene) in DIBOND®, making DIBOND® fully recyclable. Compared to pure aluminium and polymethyl methacrylate (PMMA) DIBOND® shows a notably better life cycle assessment according to ISO 14040. The test was carried out on a one-square-metre advertising banner with regard to the waste factors, eco-indicators, CO<sub>2</sub> emission and the primary energy consumption.





Polyethylene, LDPE-type mineral  
or filled polymer (flame-retardant)

0.3mm aluminium

# ALUCOBOND<sup>®</sup> DESIGN / DIBOND<sup>®</sup> DESIGN – INDIVIDUAL DÉCOR SURFACES FOR UNIQUELY POWERFUL COMMUNICATION

With individual décor surfaces ALUCOBOND<sup>®</sup> design and DIBOND<sup>®</sup> design accentuate indoor and outdoor applications such as façades, entrance portals and lobbies, canopies, façade strips, totems and pylons. New generation surfaces means architects and designers are able to create their own individual designs and yet retain the advantages and quality of tried and trusted materials. Individual décors, designed to suit customers' needs, can be produced on request. Due to the high flexibility and the quick realization, small lot sizes are also feasible. The decor effect can also be visualized using a simulation of your building project, at your request.

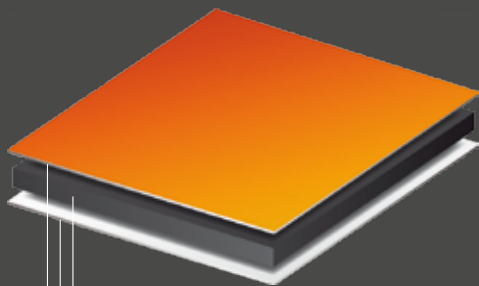
Additionally, an exemplary design collection has been created in corporation with a design studio, which shows the range of options with ALUCOBOND<sup>®</sup> and DIBOND<sup>®</sup> design in different surface categories: Art / Fashion, 3D effect, Stone / Natura, Carbon, Concrete or Wood effect. The 3D effect and additional colour depth is pivotal in making every single decor so convincing.

Characteristics	Benefits
Light, high bending stiffness, outstanding flatness	Substructure and fasteners are inexpensive, easy to handle on construction sites
Individual décor-surfaces	Planning and design freedom
Use of premium-quality lacquers	Guaranteed durability (also in exterior applications)
Easy bending and milling	Easy processing with standard tools and procedures
Ready-to-use product	No application of adhesive films or additional treatment of the surface necessary

Undreamt of potential – successful rebranding of Z-Energy petrol stations in New Zealand with individual DIBOND<sup>®</sup> design surface







Polyethylene, LDPE-type  
or mineral-filled polymer  
(flame-retardant)

0.3 – 0.5mm aluminium



During their life cycle neither ALUCOBOND® nor DIBOND® panels release any substances which are hazardous to the environment. They are completely recyclable and according to RoHS and REACH free of heavy metal. You can find further information regarding the life cycle assessment of these two materials on the previous pages.

## FOREX® – POPULAR CLASSICS

FOREX® has been synonymous with white, fine rigid PVC foam sheets for more than 30 years. The homogeneous cell structure and the semi-gloss surfaces make FOREX® the ideal material for use in signage, exhibition and furniture design, shop fitting, interior design, PoS / PoP, displays and other design applications. Available in three versions, the FOREX® product range provides a high-class and CD-compliant appearance.

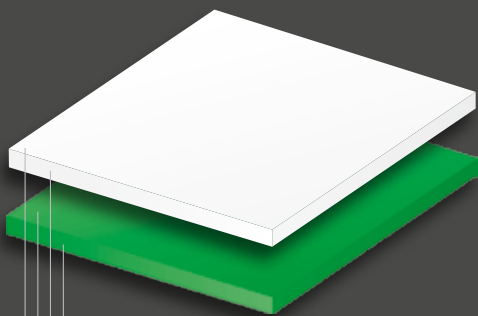
While FOREX® classic can be formed easily, even into three-dimensional objects, brilliant white FOREX® print has been specially designed for direct digital printing and provides brilliant printing results for decorative applications. FOREX® color rounds off the FOREX® product family with a selection of nine vibrant colours. As the colouring of the rigid foam sheet is uniform throughout, it offers optimum colour consistency and the same colour can be seen from every possible angle.

Pure branding – KODAK exhibition stand at the Photokina in Cologne with FOREX® color logo

A real eye-catcher – life-sized figures at the Euroshop in Dusseldorf



Characteristics	Benefits
High stability despite low weight	Easy to mount; easy to handle
Easy cold bending and thermoforming (FOREX® classic), outstanding printability (FOREX® print) and homogeneous colours throughout the complete panel (FOREX® color)	Planning and design freedom
Moisture resistant	Unproblematic use for exterior applications
Free from dangerous substances	Unproblematic use in food areas (e. g. cladding of counters)
Flame resistant due to self-extinguishing materials (class B1 according to DIN 4102)	Suitable for applications with special fire safety requirements



Lightweight foamed, closed-cell PVC rigid foam board

Protective film on one or both sides (on request)



All FOREX® products are free from dangerous substances (e.g. lead, mercury, cadmium, chromium [VI], polybrominated biphenyls [PBB] and polybrominated diphenyl ethers [PBDE]). In addition, FOREX® foam boards do not contain formaldehyde, CFCs, silicone or plasticiser and fulfil WEEE, RoHS and REACH requirements. Any cut-off materials are collected and sorted to enable a comprehensive recycling of raw material in the production cycle. Waste is regranulated and can be reintegrated into the production process without any loss of quality.

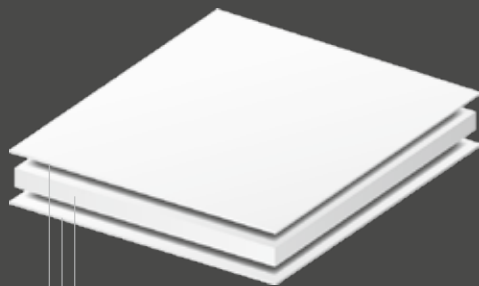
# SMART-X® – THE DISTINCTIVE ANSWER TO SOPHISTICATED ADVERTISING

SMART-X® is a lightweight completely moisture-resistant, all-plastic material with UV and weather resistant solid polystyrene (HIPS) surfaces and a core of expanded polystyrene. These characteristics mean SMART-X® is the world's only lightweight foam board which does not substantially discolour in external applications over a period of up to two years.

Creative – Printed SMART-X® in a Galeria Kaufhof window display

Simple – SMART-X® interior signage at IKEA

Due to its refined surface structure and large format production (up to 2 metres in width) SMART-X® is also perfectly suited for flat laminating and printing e.g. promotional signage, Event-Marketing, displays at the PoS / PoP and shop window decoration.



Polystyrene foam core

Solid polystyrene cover layers



SMART-X® is a mono-material composite made from 100% polystyrene (no adhesives used) and, therefore, thoroughly in line with the demand for ecological materials in the area of visual communication. More than 95% of the production waste is collected and recycled within the production plant.

Characteristics	Benefits
High stiffness and very low weight (only 1.1 kg/square metre at a thickness of 5 mm)	Easy to mount
High UV stability and moisture resistance, no deformation	Exterior applications up to 2 years possible
Outstanding printability in direct digital printing	Fresh printing colours (also for exterior applications)
Widths up to 2030mm available	Planning and design freedom

# KAPA® – MAKING LIGHT WORK OF CREATIVITY

For more than 40 years KAPA® has been synonymous with lightweight foam boards with a polyurethane foam core and individual paper surfaces. The optimally coordinated assortment of different surfaces is designed to suit the complete range of indoor-applications in visual communication. As a result, KAPA® is suitable for window displays, interior decoration and all kinds of PoS / PoP applications.

The innovative surfaces include KAPA®bright with brilliant white cover layers and a brilliant white core, KAPA®tex the lightweight foam board in canvas optic that adds additional visual depth to prints as well as KAPA®line and KAPA®plast, which are also available in a width of two metres.

Appealing – Large format print on KAPA®plast for the childrens' area at Deichmann shoe store

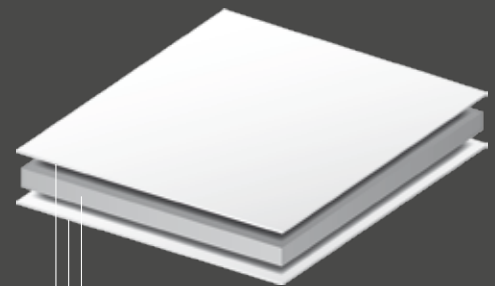
Three-dimensional – Coca-Cola logo on KAPA®



Characteristics	Benefits
High quality surfaces	Utilizable surfaces on both sides for an ideal printing result or for lamination
Polyurethane foam core	No memory-effect; trouble-free usage of solvent-based colours and adhesives
High stiffness and dimensional stability	Even thin sheets are of outstanding flatness
Easy to fold and cut; no crumbling while processing	Easy processing with standard tools and procedures



Only paper with SFI, PEFC or FSC certification, which comprises the preservation and improvement of the ecological, social and economic functions of forestry operations, is used in our KAPA® product range. All of the pulp papers we use are low-chlorine and oxygen bleached. A majority of the paper is even produced entirely without additives. According to REACH regulations, the raw materials used in the manufacturing process present no risk to humans or to the environment. Collecting and reusing the raw material in the production process and recycling production waste has been common practice at the production site for a number of years.



Polyurethane foam core

Individual cover surfaces



## SUSTAINABILITY

Sustainability and environmental protection represent an increasingly important topic in corporate identity design. Brands need to communicate dependable values in the field of sustainability. Especially in the case of corporate architecture, decision makers place great emphasis on the use of material which has been produced taking ecological and social factors into account. Increased environmental awareness and the demand for more sustainability are becoming essential criteria in prospective buyer's decision process.

### **ENVIRONMENTAL PROTECTION AS AN INTEGRATIVE COMPONENT OF SUSTAINABILITY MANAGEMENT AT 3A COMPOSITES**

Sustainable involvement and the appurtenant sub-area environmental protection have long been amongst our fundamental corporate objectives at 3A Composites. The minimization of risks for man and environment as well as the reduction of environmental pollution through careful and efficient utilisation of resources is part of the corporate philosophy. 3A Composites is aware of its responsibility as a globally active enterprise and has been an active campaigner in matters of sustainability for many years. Sustainability management at 3A Composites deals with all three levels of sustainable action in depth: the ecological, social and economic levels. In addition to

concrete activities, 3A Composites endeavours to create transparent communication and seeks dialogue with all interest groups.

### **ENVIRONMENTAL MANAGEMENT SYSTEMS**

Our three production sites in Germany and Switzerland have been certified for quite some time in accordance with ISO 14001, which establishes globally recognised requirements for environmental management. A strong linkage of management systems for quality (ISO 9001), environmental protection (ISO 14001) and occupational safety (OHSAS 18001) is an important objective for us. This leads to environmental protection tasks being better integrated in the operative processes.

These industry standards are incorporated in a company-wide management system in the field of safety-health-environmental protection. The programme, set up in 2003 as a self-commitment, comprises much more than merely complying with standards and particularly focusses on promoting responsible action by all employees in the realm of safety, health and environmental protection.

### **SUBSTANCES**

In the past few years, the discussion surrounding hazardous substances has intensified and developed into a decision criterion of substantial importance to customers.





A comprehensive restructuring of European chemical policy is being undertaken with the current stage by stage introduction of REACH regulations. The main objective of the new regulation is the protection of human health and the environment. These regulations state that there shall be a standardized evaluation of substances with regard to risk potential for man and environment. Our highest priority is to eliminate all hazardous processes and substances. Our substrates are manufactured from raw materials which present no risk to man or environment. This is confirmed within the REACH regulations.

#### **WASTE REDUCTION AND RECYCLING**

Another field of action is rendering the production stages as environmentally-friendly as possible. In this connection, our focus lies on resource efficiency and consistent avoidance of waste. The recycling of raw materials in the production process as well as the material utilisation of production waste has been a common practice at our sites for years. The recycling rate for the most important raw materials (in terms of volume) in our production process is virtually 100 %.

#### **INNOVATION**

Innovation also plays a key role in our efforts to reduce environmental pollution. We regard our concern for

environmental aspects and the associated efforts to achieve resource efficiency as a fundamental part of our innovation strategy.

3A Composites can look back on a successful history as innovation leader in the improvement of resource efficiency. For the most part, the success story of ALUCOBOND®, DIBOND®, FOREX®, SMART-X® and KAPA® products is founded on efficient utilisation as well as the intelligent combination of materials (foamed materials and composite materials). This leads to optimised product attributes with reduced input of resources.

#### **GROW WITH RESPONSIBILITY!**

The fields of action described here show one significant extract from the areas in which we endeavour to meet the demand for sustainability and environmental compatibility. Ethically correct behaviour vis-à-vis man and environment is a basic prerequisite for business enterprises. We take this responsibility very seriously – every day anew!

Showing identity.  
ALUCOBOND® DIBOND®



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