

# ALUCORE®

# Kaneba™

ALUCOBOND  
**40+** years  
of excellence



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**Honeycomb composite panels  
for architecture – more than  
just a wall cladding**

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**CONDITIONS APPLY**



THE WORLD LEADER IN ALUMINIUM COMPOSITE MATERIALS

ALUCOBOND  
**40+** years  
of excellence  
A Proven Technology

## Product Information

ALUCORE® aluminium composite panels consist of an aluminium honeycomb core sandwiched between two sheets of aluminium, manufactured in a continuous production process.

ALUCORE® is also a composite material for a variety of applications in transport, architecture or industrial production, showing excellent product properties such as extraordinary flatness, large variety of colours and high formability.

The aluminium honeycomb core gives the composite panel a high rigidity and an extremely low weight. ALUCORE® therefore provides the decisive advantage where very high demands are made on the material for applications such as façade cladding or roofing, e.g. if exposed to extremely high wind load and for large self-supporting roofs.

### Available Sizes

Thickness	: Standard	: 6mm, 10mm, 15mm, 20mm, 25mm
Width	: Standard	: 1250, 1500mm
	: Special	: min. 1000mm max. 1560mm
Length	: To customer's specification	max. 9000 mm

### Technical Data

Panel-Thickness:		6 mm	10mm	15mm	20mm	25mm
Aluminium Cover Sheet, front side	[mm]	1.00	1.00	1.00	1.00	1.00
Aluminium Cover Sheet, reverse side	[mm]	0.50	0.50	1.00	1.00	1.00
Weight	[kg/m <sup>2</sup> ]	4.9	5.3	7.0	7.4	7.8

#### Technical Properties:

Section Modulus	Z	[cm <sup>3</sup> /m]	2.63	4.631	4.001	9.002	4.00
Rigidity	E.I	[kNcm <sup>2</sup> /m]	7'100	21'900	75'500	139'000	221'700
Alloy of cover sheets	EN AW-5005A (AlMg1)						
Modulus of Elasticity	[N/mm <sup>2</sup> ] 70'000						
Tensile Strength of cover sheets	[N/mm <sup>2</sup> ] R <sub>m</sub> ≥ 125						
0.2% Proof Stress	[N/mm <sup>2</sup> ] R <sub>p0.2</sub> ≥ 80						
Elongation	A <sub>50</sub> ≥ 5%						
Temperature Resistance	-40°C to +80°C						
Linear Thermal Expansion	2.4 mm/m at 100°C temperature difference						

#### Acoustical Properties:

Sound Absorption Factor	α <sub>s</sub>	0.05	0.05	0.05	0.05	0.05
Airborne Sound Insulation Index	R <sub>w</sub> [dB]	21	21	22	23	25

#### Thermal Properties:

Thermal Resistance	1/Λ = R [m <sup>2</sup> K/W]	0.0063	0.0074	0.0084	0.0089	0.0093
Heat Transition Coefficient	U-value [W/m <sup>2</sup> K]	5.67	5.64	5.605	5.59	5.575

### Fire Behaviour

Country	Test according to ...	Result / Classification
British Standard	BS 476, Part 6 BS 476, Part 7	Index 0 Class 1
United Kingdom	meets therefore Class 0 (National Building Regulations)	
Singapore	Approved for external wall cladding for any type of building without restriction in height PSB tested, approved and listed	

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### Surface Finishes

#### Fluorocarbon (PVDF) coating

The coating is applied to the aluminium coil prior to lamination into a honeycomb panel, using a continuous coil coating process which is based on the latest technology. The multiple layers of coating are individually baked at temperatures between 200-260°C. The quality of the coating is tested according to latest standards.

Fluorocarbon (PVDF) coating system combines good formability with excellent surface durability. They are extremely resistant against weathering, strong solar radiation and pollution attack.

For exterior application, ALUCORE® is available in many specially selected standard colours (solid and metallic). For details, refer to the ALUCOBOND® / ALUCORE® colour charts. Custom colours are available on request.

#### Stonelook

ALUCORE® in STONELOOK reproduce the brilliant surfaces of natural stone. The high quality standard of the continuous coil-coating method guarantees excellent durability of the PVDF lacquered surface even in extreme weather condition.

#### 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 gloss of approx. 30% 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.

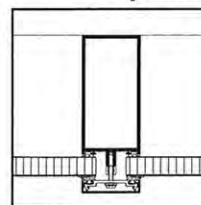
### Storage

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

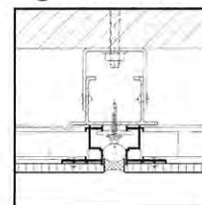
### Cleaning and maintenance

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.

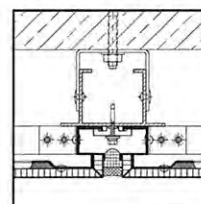
### Examples of Fixing Methods



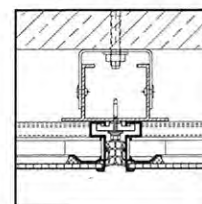
glazed in a stick system



tray panel screw fixed



tray panel screw fixed



edge grip system