

larcore® A2

ALUMINIUM HONEYCOMB PANELS FOR
LIGHTWEIGHT ARCHITECTURAL ENVELOPES

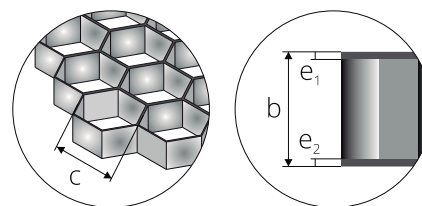
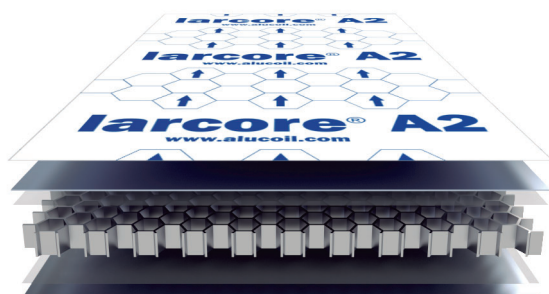


MANUFACTURER OF ADVANCED BUILDING MATERIALS



larcore® A2 6 mm Hidetech® LIGHT

6 mm **aluminium honeycomb panels** with cassette installation system



Protective film

0,7 mm coated aluminium 5005 EN 573-3

Bonding layer

Aluminium honeycomb core

Bonding layer

0,5 mm aluminium 5005 EN 573-3

Alucoil® has developed the **Hidetech® LIGHT** installation system for 6 mm thick **larcore® A2** panel. An innovative solution that reduces the substructure on the façade by 30%, but can be fabricated with traditional tools. Extremely light, rigid, non-combustible and with the best flatness on the market.

CERTIFICATION: EPD® Environmental product declaration

TESTING: Large scale test BS 8414-1 & BS 8414-2, with **Alucoil® Hidetech® LIGHT** installation system.

CLASSIFICATIONS: Same composition and quantity of adhesive as **larcore® A2** 14 mm + **HideTech® PRO** installation system by **Alucoil®**, classified A2-s1, d0 according to EN 13501-1, and as **larcore® A2** 8 and 25 mm, classified M0 according to NF P 92-501.

Features of the panel

Total thickness "b" Width tolerance ≤ 1600 mm: ±0,2 mm Width tolerance > 1600 mm: -0,1 / +0,5 mm	6 mm
External skin thickness "e₁"	0,7 mm
Internal skin thickness "e₂"	0,5 mm
Weight	4,19 kg/m ²
Standard width Tolerance -0 / +2 mm	1250 mm 1500 mm 1575 mm 2000 mm
In the 2000 mm width the external and internal aluminium sheets are of 0,7mm thickness.	
Length Tolerance -1 / +6 mm a) min. b) max.	a) 2000 mm b) 14000 mm

Coated aluminium skin features

Aluminium alloy (ext. int.)	5005 EN 573-3
Ultimate tensile strength (R_m)	125 < R _m < 185 N/mm ²
Yield strength (R_{p0,2})	> 80 N/mm ²
Elongation (A)	> 4%

Mechanical features of the panel

The purpose of the mechanical values is to be able to compare different product configurations. Specific calculations for each project must be requested to the **Alucoil®** technical department.

Rigidity (EI) DIN 53293 a) Transversal axis b) Longitudinal axis	a) 2825 kNcm ² /m b) 2386 kNcm ² /m
Acoustic insulation (R_a) ISO 10140-2	19,54 dBA
Thermal resistance (R)	0,0067 m ² K/W

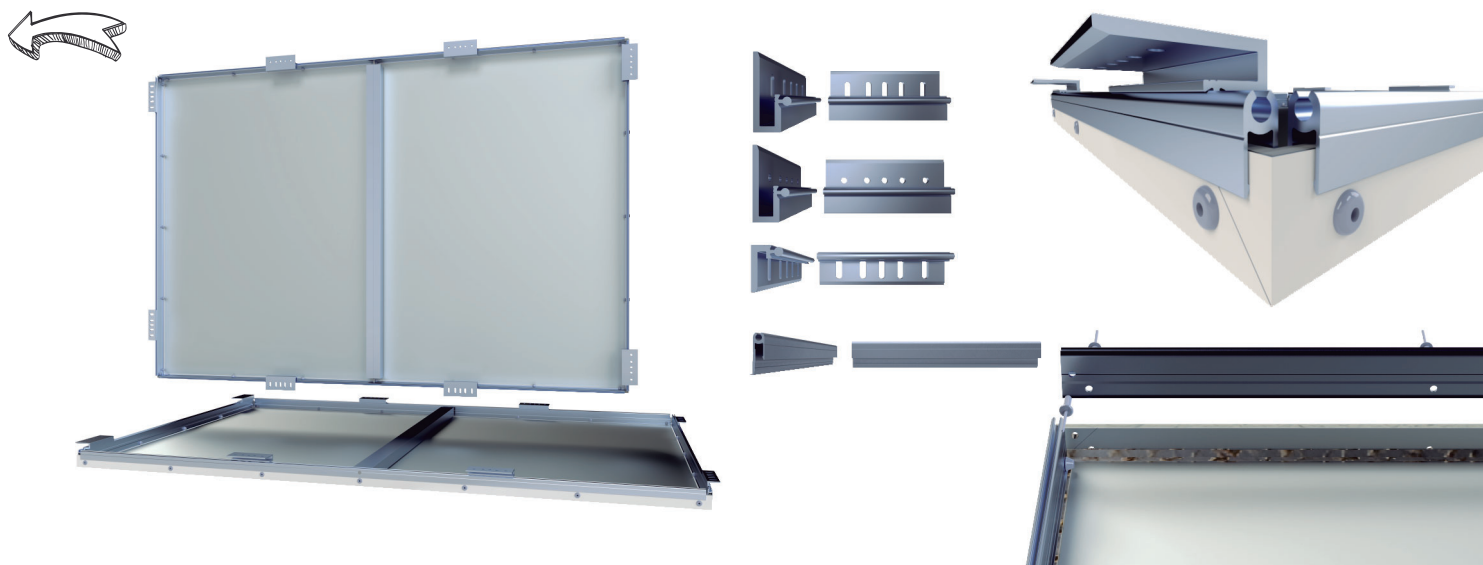
Core features

Aluminium alloy	3005 EN 573-3
Cell size	1/4" ≈ 6,35 mm
Foil thickness	50μ
Compressive strength	2,20 MPa DIN 53291
Density (ρ)	56 kg/m ³

For more information, request a product technical sheet or visit www.alucoil.com

Hidetech® LIGHT + larcore® A2 6 mm installation system (CASSETTES)

Wall brackets (aluminium alloy EN AW 6060 T6). Vertical profiles, clips and perimeter profile (aluminium alloy EN AW 6063 T66)



Coating possibilities of larcore® A2 panel

PVDF^(*)

COASTAL 2L: 31μ / 3L: 38μ
Polyvinylidene Fluoride

Maximum quality in liquid paint.
Wide range of solid and metallic colours.
Gloss level limitations (20G - 40G).

fluorlac®^(*)

FEVE 2L: 25μ / 3L: 35μ
Fluoropolymer

Available in small quantities in any RAL colour.
High quality liquid paint.
Low dirt adhesion.
Gloss levels from 10G to 90G.

DG5^(*)

HDP 2L: 35μ / 3L: 51μ
High Durable Polyester

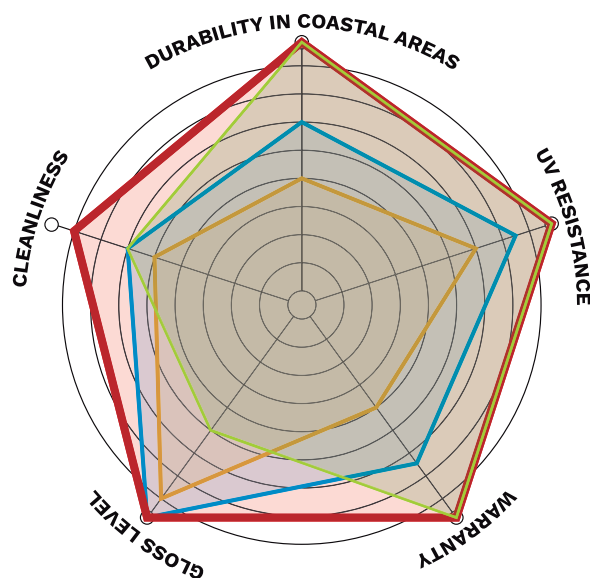
Maximum versatility of finishes:
• HOLO, DESIGN & TEXTURED (wood-concrete-corten steel)
Super matt 2G - 10G
High gloss level 90G

PUR/PA

ALUNATURAL 16μ
Polyurethane / Polyimide

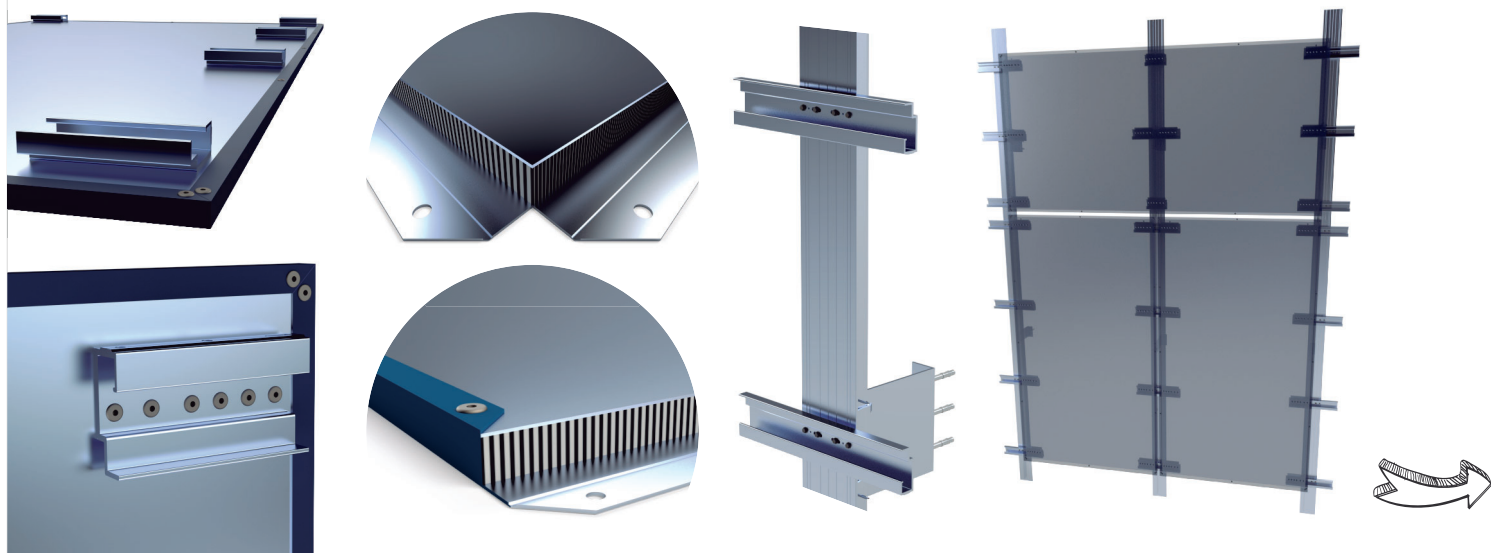
Trasparent special coating for **Alunatural** finishes.

^(*) In the graph only 2L



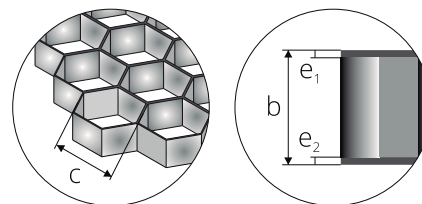
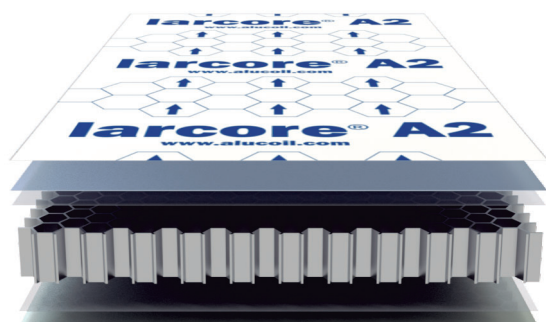
Hidetech® PRO + larcore® A2 14 mm installation system (DOUBLE EDGE CLOSED PANELS)

Wall brackets (aluminium alloy EN AW 6060 T6). Vertical profiles, hangers and fixing clips made of aluminium alloy EN AW 6063 T66



larcore® A2 14 mm Hidetech® PRO

14 mm **Aluminium honeycomb panels** with double edge closed panel installation system



Protective film

1,0 mm coated aluminium 5005 EN 573-3

Bonding layer

Aluminium honeycomb core

Bonding layer

1,0 mm aluminium 5754 EN 573-3

For those who demand a perfect flat panel solution with a very high rigidity, **Alucoil®** has developed the **Hidetech® PRO** system from **larcore® A2** panels with a total thickness of 14 mm. A proposal based on clips that fix the edged panels to a very reduced substructure. A new concept that is extraordinarily light, non-combustible and with perfect flatness.

CERTIFICATION: EPD® Environmental product declaration

CLASSIFICATIONS:

a) Fire classification A2-s1, d0⁽¹⁾ EN 13501-1

b) Fire classification M0⁽²⁾ NF P 92-501

Panel features

Total thickness "b" Tolerance ±0,2 mm	14 mm
External skin thickness "e₁"	1,0 mm
Internal skin thickness "e₂"	1,0 mm
Weight	6,75 kg/m ²
Standard width Tolerance -0 / +2 mm	1000 mm 1250 mm 1500 mm 2000 mm
Length Tolerance -1 / +6 mm a) min. b) max.	a) 2000 mm b) 14000 mm

Mechanical features of the panel

The purpose of the mechanical values is to be able to compare different product configurations. Specific calculations for each project must be requested to the **Alucoil®** technical department.

Rigidity (EI) (kNcm ² /m) DIN 53293	TOP VALUE^(*)
^(*) Extra rigid premium panel for use with Hidetech® PRO system. All necessary calculations are provided by our technical department.	
Acoustic insulation (R_a) ISO 10140-2	21,56 dBA
Thermal resistance (R)	0,0086 m ² K/W

Coated aluminium skin features

Aluminium alloy a) External skin b) Internal skin	a) 5005 EN 573-3 b) 5754 EN 573-3
Ultimate tensile strength (R_m) a) External skin b) Internal skin	a) 125 < R _m < 185 N/mm ² b) > 280 N/mm ²
Yield strength (R_{p0,2}) a) External skin b) Internal skin	a) > 80 N/mm ² b) > 220 N/mm ²
Elongation (A) a) External and internal skin	> 4%

Core features

Aluminium alloy	3005 EN 573-3
Cell size	1/4" ≈ 6,35 mm
Foil thickness	50μ
Compressive strength	2,20 MPa DIN 53291
Density (ρ)	56 kg/m ³

⁽¹⁾Not specifically tested under EN 13501-1. Same adhesive quantity and composition than **larcore® A2** 14 mm + **Alucoil's Hidetech®** installation system, classified A2-s1, d0 EN 13501-1.

⁽²⁾NF P 92-501 not specifically tested. Same adhesive quantity and composition than **larcore® A2** 8 mm and 25 mm, classified M0 NF P 92-501.

For more information, request a product technical sheet or visit www.alucoil.com

larcore® A2 range of panels with 0,7 mm aluminium skins

8 mm - 10 mm - 14 mm - 20 mm^(*) panel thickness

^(*)20 mm panel with 1 mm aluminium skins

Panels developed for systems present in the market such as glued, riveted or screwed.

Panel features

Total thickness Tolerance $\pm 0,2$ mm	8 mm	10 mm	14 mm	20 mm
External skin thickness	0,7 mm	0,7 mm	0,7 mm	1,0 mm
Internal skin thickness	0,7 mm	0,7 mm	0,7 mm	1,0 mm
Weight	4,83 kg/m ²	4,94 kg/m ²	5,19 kg/m ²	7,05 kg/m ²
Standard widths Tolerance -0 / +2 mm	1250 mm / 1500 mm / 1575 mm / 2000 mm			
Lengths Tolerance -1 / +6 mm	From 2000 mm to 14000 mm			

Mechanical features of the panel

The purpose of the mechanical values is to be able to compare different product configurations. Specific calculations for each project must be requested to the **Alucoil®** technical department.

	Transversal/Longitudinal	Transversal/Longitudinal	Transversal/Longitudinal	Transversal/Longitudinal
Rigidity (EI) kNcm ² /m DIN 53293	9421 / 7217	24458 / 22519	49915 / 45958	143868 / 121726

Coated aluminium skin features

Aluminium alloy	5005 EN 573-3
Ultimate tensile strength (R_m)	125 < R _m < 185 N/mm ²
Yield strength (R_{p0,2})	>80 N/mm ²
Elongation (A)	>4%

Core features

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Note:
larcore® A2 used in external outdoor facades must be installed with a riveted perimeter double edge closing system or any other solution which guarantees the water tightness of the panel under the customer's responsibility.

Certificates and classifications

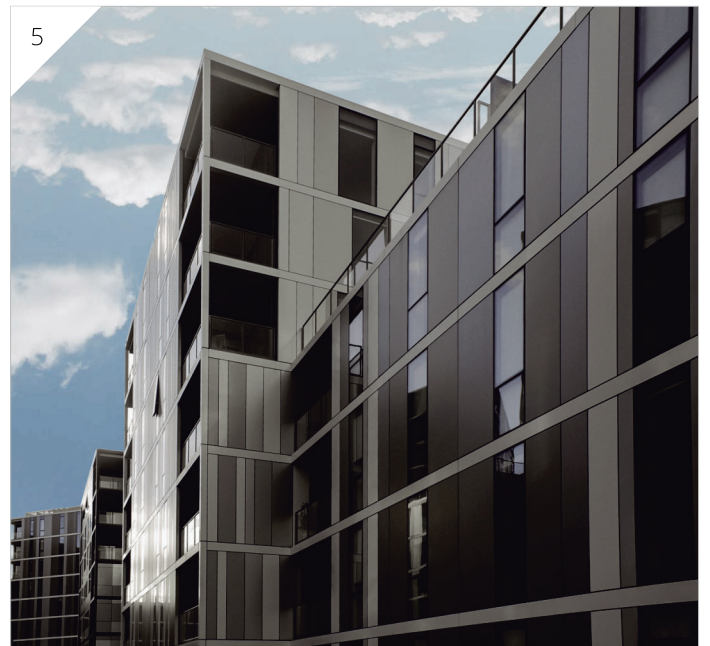
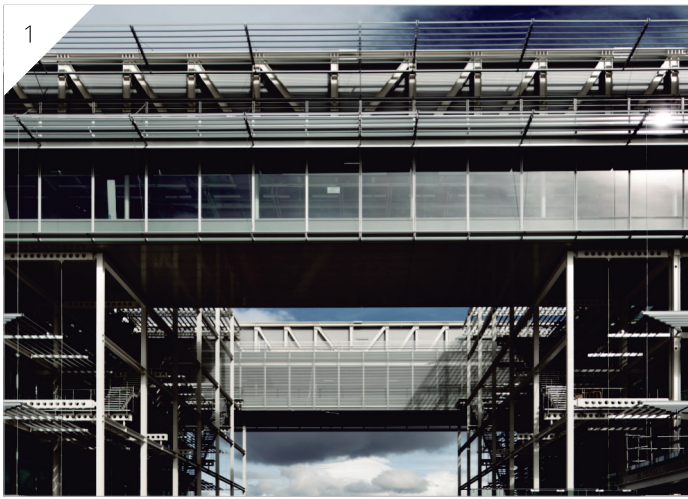
larcore® A2 6 mm + Hidetech® LIGHT & larcore® A2 14 mm + Hidetech® PRO



larcore® A2

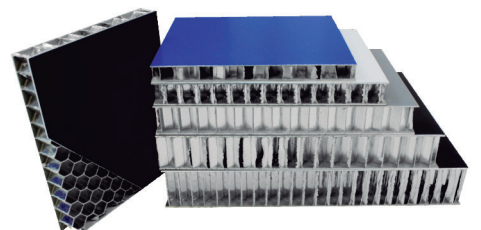


Marriott Courtyard. Batumi, Georgia
larcore® A2 10 mm & 8 mm Traffic white 9016
Architects: Alliance Group



larcore® A2

1. Banco Santander. Madrid. **larcore® A2** 14 mm. Alunatural anodic brushed gloss / **2.** Housing Building "EL GOLF". Madrid. **larcore® A2**. Holo white gold. Architects: La Finca / **3.** Orygen Hospital. Melbourne Australia. Architect: BLP. **larcore® A2** el Zinc. Slate, green, red and brown / **4.** El8HT South Esplanade. Glenelg Australia. Architect: Chasecrown. **larcore® A2** 6 mm. Traffic white / **5.** Toorak Park. Vic. Armadale Australia. Architect: Denton Corker Marshall. **larcore® A2** 6 mm. Pure white, silver, champagne, 7035 and Anodized Look dark grey





larcore® A2



Housing building, 90 King Street Flinders,
VIC, Australia.
larcore® Anodized Dark Grey.
Architect: Bruce Henderson & Mim Design.
Photographer: Xhejs Koci



Alucoil®

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larcore® A2 architecture
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