

# larcore<sup>®</sup> A2

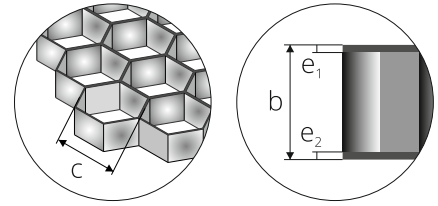
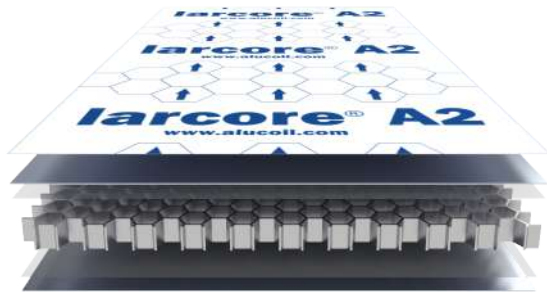
ALUMINIUM HONEYCOMB PANELS FOR  
LIGHTWEIGHT ARCHITECTURAL ENVELOPES



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

<b>Total thickness "b"</b> Width tolerance ≤ 1600 mm: ±0,2 mm Width tolerance > 1600 mm: -0,1 / +0,5 mm	<b>6 mm</b>
<b>External skin thickness "e<sub>1</sub>"</b>	<b>0,7 mm</b>
<b>Internal skin thickness "e<sub>2</sub>"</b>	<b>0,5 mm</b>
<b>Weight</b>	4,19 kg/m <sup>2</sup>
<b>Standard width</b> 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.

<b>Length</b> Tolerance -1 / +6 mm a) min. b) max.	a) 2000 mm b) 14000 mm
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## Coated aluminium skin features

<b>Aluminium alloy</b> (ext. int.)	5005 EN 573-3
<b>Ultimate tensile strength (R<sub>m</sub>)</b>	125 < R <sub>m</sub> < 185 N/mm <sup>2</sup>
<b>Yield strength (R<sub>p0,2</sub>)</b>	>80 N/mm <sup>2</sup>
<b>Elongation (A)</b>	>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.

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

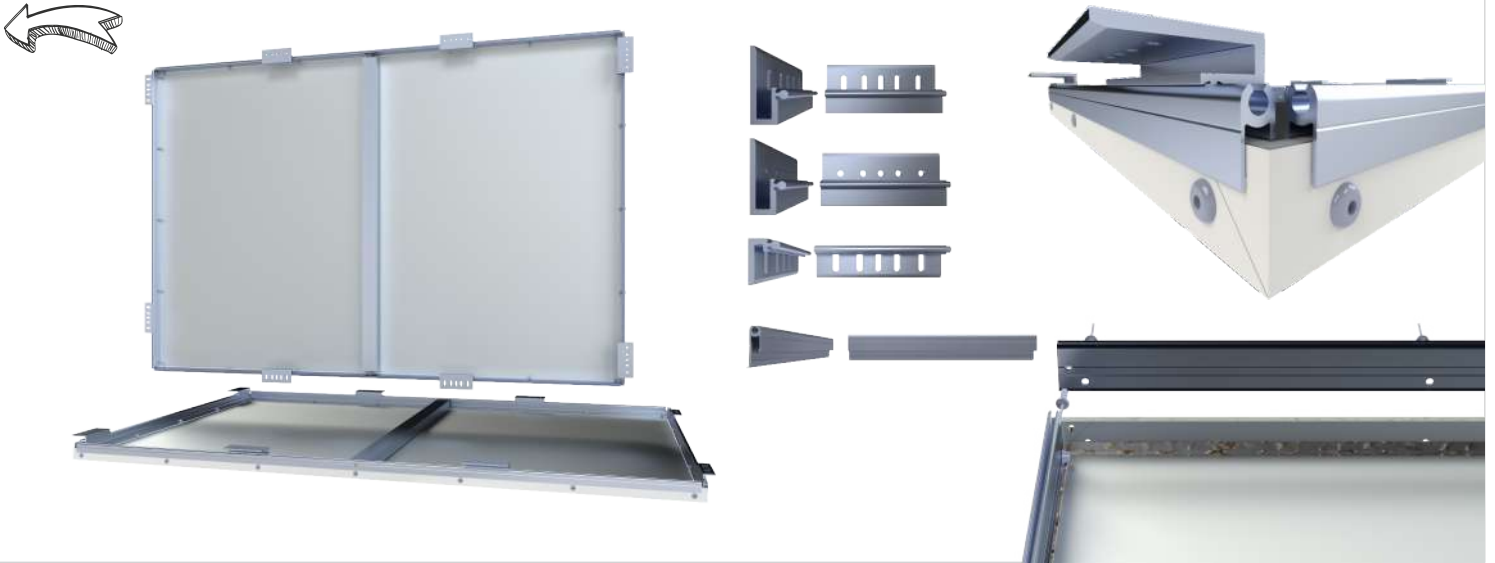
## Core features

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

For more information, request a product technical sheet or visit [www.alucoil.com](http://www.alucoil.com)

## Hidotech® 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<sup>(\*)</sup>

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®<sup>(\*)</sup>

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<sup>(\*)</sup>

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

Maximum versatility of finishes:  

- HOLO, DESIGN & TEXTURED (wood-concrete-corten steel)

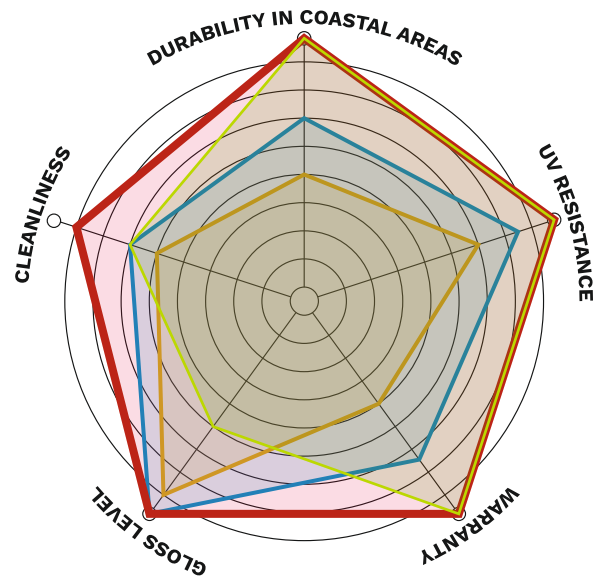
 Super matt 2G - 10G  
 High gloss level 90G

### PUR/PA

ALUNATURAL 16µ  
Polyurethane / Polyimander

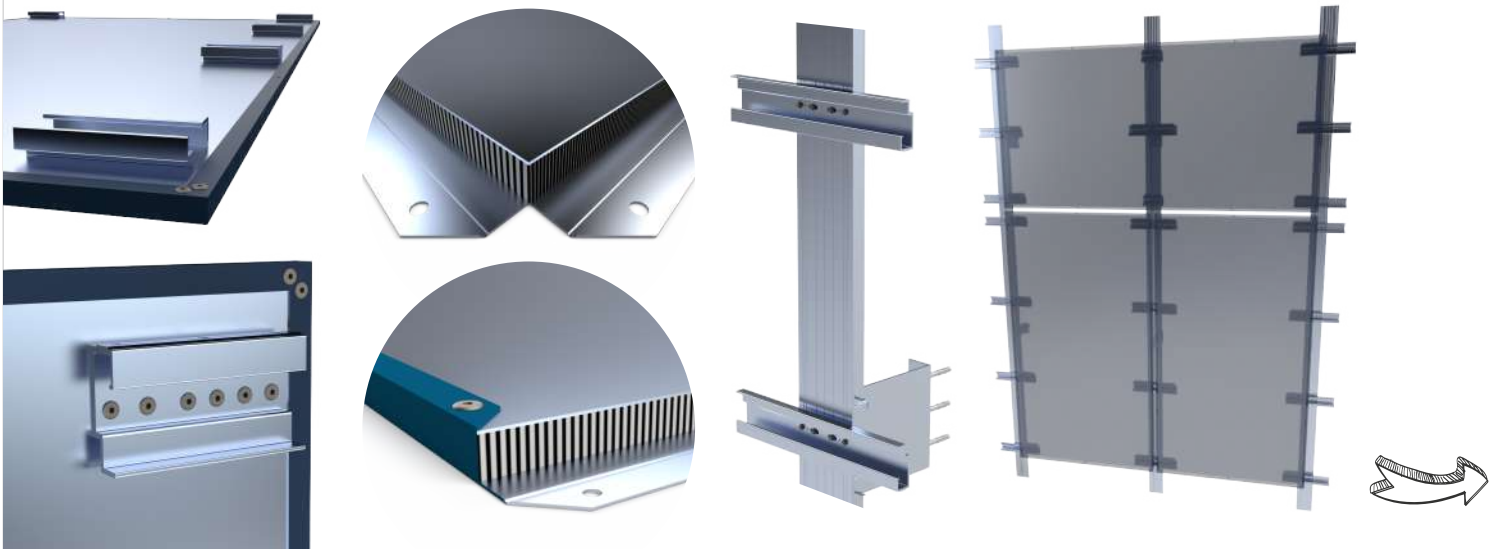
Trasparent special coating for **Alunatural** finishes.

<sup>(\*)</sup> In the graph only 2L



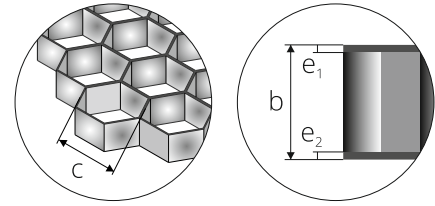
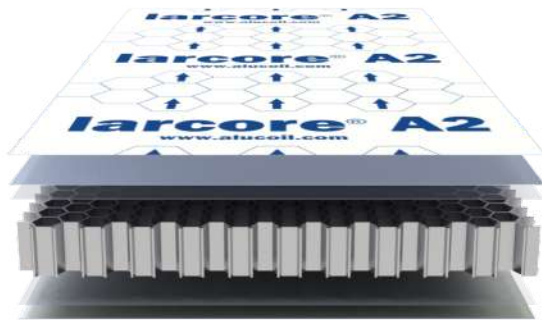
## Hidotech® PRO + larcore® A2 14 mm installation system (DOUBLE EDGE CLOSED PANELS)

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<sup>(1)</sup> EN 13501-1
- b) Fire classification M0<sup>(2)</sup> NF P 92-501

## Panel features

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

## Coated aluminium skin features

<b>Aluminium alloy</b> a) External skin b) Internal skin	a) 5005 EN 573-3 b) 5754 EN 573-3
<b>Ultimate tensile strength (R<sub>m</sub>)</b> a) External skin b) Internal skin	a) 125 < R <sub>m</sub> < 185 N/mm <sup>2</sup> b) > 280 N/mm <sup>2</sup>
<b>Yield strength (R<sub>p0,2</sub>)</b> a) External skin b) Internal skin	a) > 80 N/mm <sup>2</sup> b) > 220 N/mm <sup>2</sup>
<b>Elongation (A)</b> a) External and internal skin	> 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.

<b>Rigidity (EI)</b> (kNcm <sup>2</sup> /m) DIN 53293	<b>TOP VALUE<sup>(*)</sup></b>
<b>Acoustic insulation (R<sub>a</sub>)</b> ISO 10140-2	21,56 dBA
<b>Thermal resistance (R)</b>	0,0086 m <sup>2</sup> K/W

<sup>(\*)</sup>Extra rigid premium panel for use with **Hidetech® PRO** system. All necessary calculations are provided by our technical department.

## Core features

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

<sup>(1)</sup>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.  
<sup>(2)</sup>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](http://www.alucoil.com)



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

## 8 mm - 10 mm - 14 mm - 20 mm<sup>(\*)</sup> panel thickness

<sup>(\*)</sup>20 mm panel with 1 mm aluminium skins

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

### Panel features

<b>Total thickness</b> Tolerance $\pm 0,2$ mm	<b>8 mm</b>	<b>10 mm</b>	<b>14 mm</b>	<b>20 mm</b>
<b>External skin thickness</b>	<b>0,7 mm</b>	<b>0,7 mm</b>	<b>0,7 mm</b>	<b>1,0 mm</b>
<b>Internal skin thickness</b>	<b>0,7 mm</b>	<b>0,7 mm</b>	<b>0,7 mm</b>	<b>1,0 mm</b>
<b>Weight</b>	4,83 kg/m <sup>2</sup>	4,94 kg/m <sup>2</sup>	5,19 kg/m <sup>2</sup>	7,05 kg/m <sup>2</sup>
<b>Standard widths</b> Tolerance -0 / +2 mm	1250 mm / 1500 mm / 1575 mm / 2000 mm			
<b>Lengths</b> 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
<b>Rigidity (EI)</b> kNcm <sup>2</sup> /m DIN 53293	9421 / 7217	24458 / 22519	49915 / 45958	143868 / 121726

### Coated aluminium skin features

<b>Aluminium alloy</b>	5005 EN 573-3
<b>Ultimate tensile strength (R<sub>m</sub>)</b>	125 < R <sub>m</sub> < 185 N/mm <sup>2</sup>
<b>Yield strength (R<sub>p0,2</sub>)</b>	>80 N/mm <sup>2</sup>
<b>Elongation (A)</b>	>4%

### Core features

<b>Aluminium alloy</b>	3005 EN 573-3
<b>Cell size</b>	1/4" $\approx$ 6,35 mm
<b>Foil thickness</b>	50 $\mu$
<b>Compressive strength</b>	2,20 MPa DIN 53291
<b>Density (<math>\rho</math>)</b>	56 kg/m <sup>3</sup>

For more information, request a product technical sheet or visit [www.alucoil.com](http://www.alucoil.com)

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**



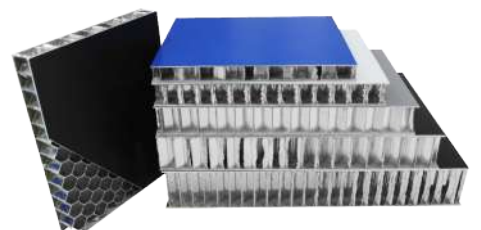
Marriott Courtyard. Batumi, Georgia  
**larcore® A2** 10 mm & 8 mm Traffic white 9016  
Architects: Alliance Group





## larcore® A2

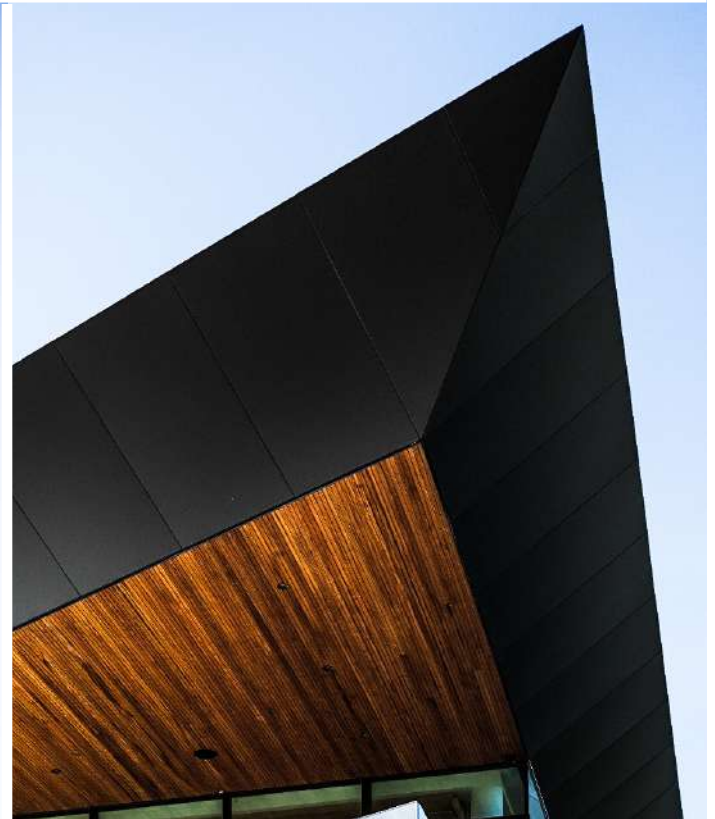
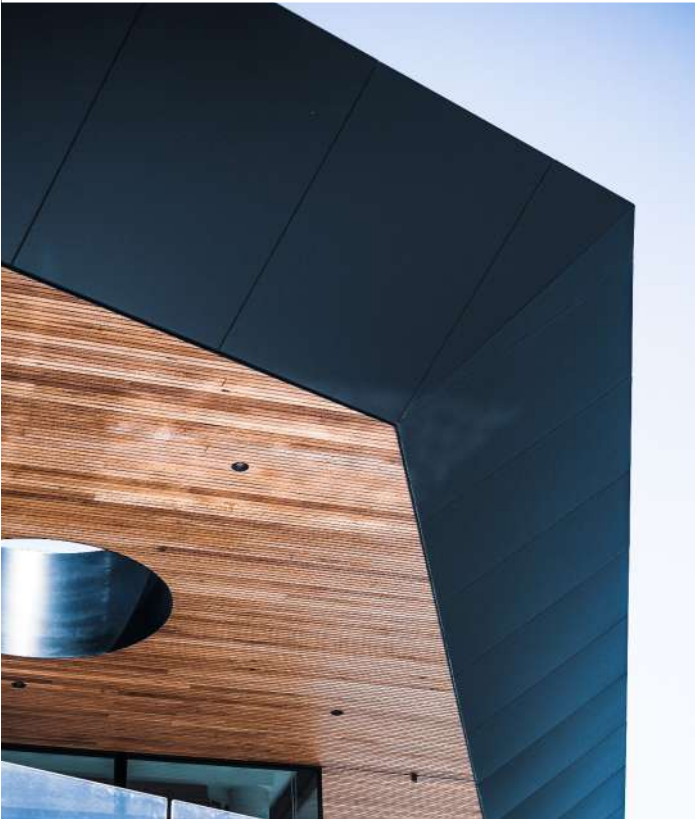
1. Banco Santander. Madrid. **larcore® A2** 14 mm. Alunatural anodic brushed gloss / 2. Housing Building "EL GOLF". Madrid. **larcore® A2**. Holo white gold. Architects: La Finca / 3. Orygen Hospital. Melbourne Australia. Architect: BLP. **larcore® A2** el Zinc. Slate, green, red and brown / 4. E18HT 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



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**larcore® A2** architecture  
EDICIÓN 2021 (01) (ENG)