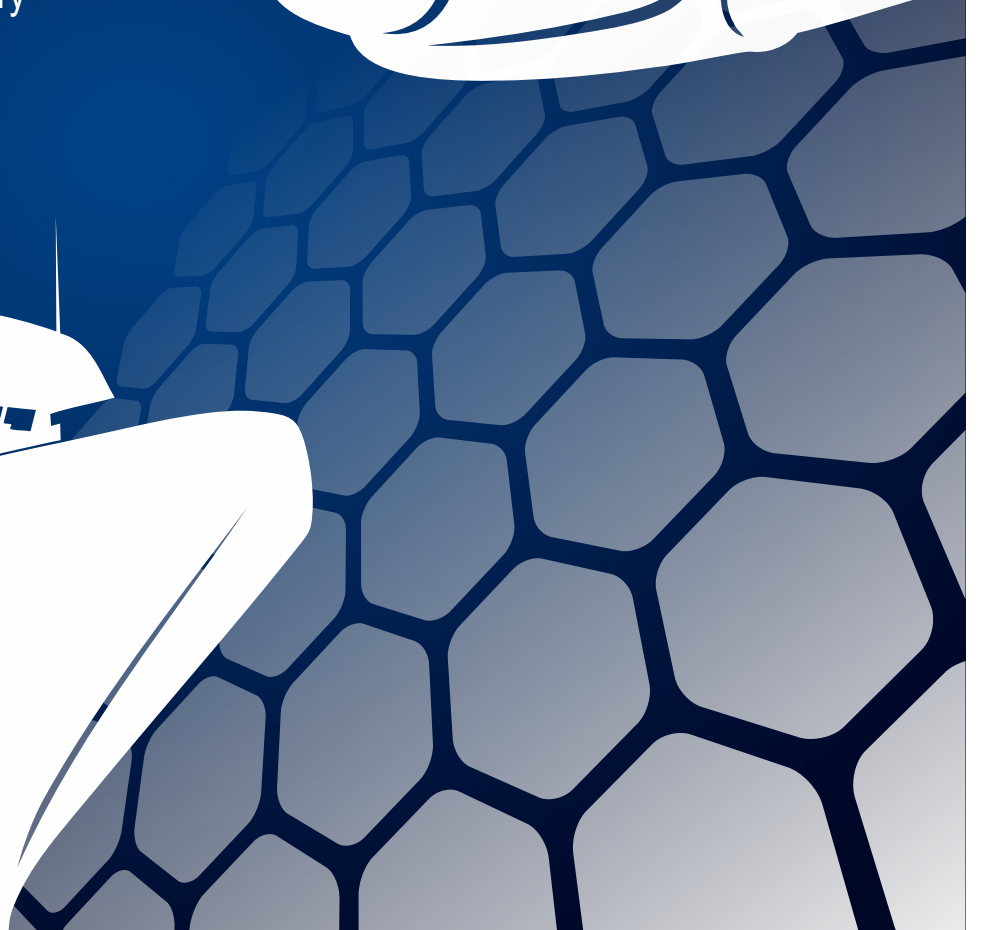
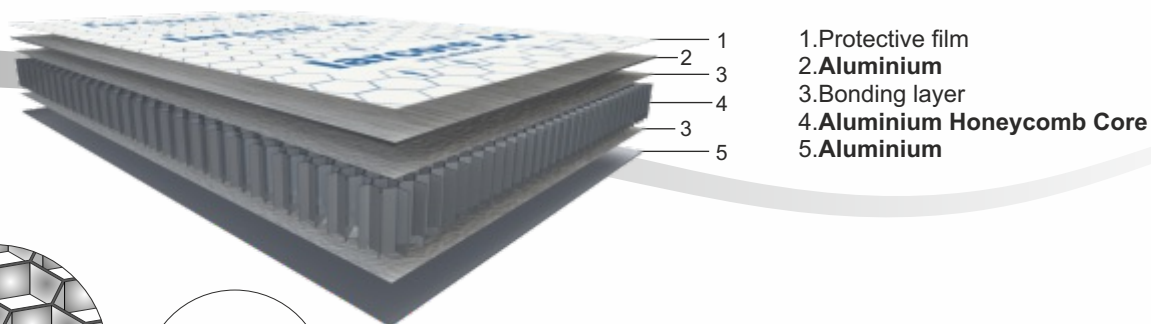




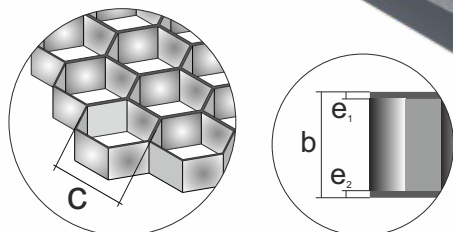
Aluminium  
Honeycomb Panels for  
Transport & Industry



**Alucoil**<sup>®</sup>  
Grupo Alibérico



1. Protective film
2. **Aluminium**
3. Bonding layer
4. **Aluminium Honeycomb Core**
5. **Aluminium**



## Composition

Through a proprietary continuous manufacturing process, **Alucoil**<sup>®</sup> manufactures its structural aluminum honeycomb panel **larcove**<sup>®</sup> to fit perfectly in numerous sectors such as marine, railway and industrial applications. It is an extremely lightweight and rigid panel which is fire proof, non-toxic, recyclable, insulating, and energy efficient.

After an intensive R&D effort, **Alucoil**<sup>®</sup> has managed to combine the natural qualities of the honeycomb structure with its industrial experience in the manufacturing of structural metal panels, obtaining a final product capable of integrated solutions across various end requirements.

### Panel features

Total thickness "b" [mm]	5,5	6,0	10,0	15,0	20,0	25,0	30,0	40,0
Metal thickness "e <sub>1</sub> " [mm]	0,5	1,0	1,0	1,0	1,0	1,0	1,0	1,0
Metal thickness "e <sub>2</sub> " [mm]	0,5	0,5	0,5	1,0	1,0	1,0	1,0	1,0
Alloy	5754	5754	5754	5754	5754	5754	5754	5754
Panel weight [kg/m <sup>2</sup> ]	3,62	4,97	5,19	6,78	7,05	7,32	7,59	8,13
Moment of inertia (*) "I" [cm <sup>4</sup> /m]	0,63	0,79	3,16	9,99	18,06	28,81	30,16	83,51
Rigidity (*) "EI" [kNcm <sup>2</sup> /m]	4390	5519	22169	69964	126466	201716	211227	584560
Section modulus (*) [cm <sup>3</sup> /m]	2,28	2,63	4,92	13,32	18,06	23,05	20,12	41,75
Sound reduction "R <sub>w</sub> " [dB]	18,75	19,0	20,0	21,25	22,5	23,75	25	27,5
Acoustic isolation "R <sub>a</sub> " [dBA]	19,5	19,6	20,3	21,18	22,16	23,21	24,3	26,15
Thermal resistance "R" [m <sup>2</sup> K/W]	0,006	0,0063	0,0074	0,0084	0,0089	0,0093	0,0099	0,011
Standard width	1000 / 1250 / 1500 / 2000 [mm]							
Min / max length	2000 - 14000 [mm]							
Cell size "C"	3/8" / 9,52mm							
Thickness foil	70 [μ]							

(\*) Value measured in the transversal axis

### Core characteristics

Aluminium alloy	3005 [UNE EN 573-3]
Compression resistance	2,00 [MPa]
Core density	54 [kg/m <sup>3</sup> ]
Protective primer	OK

### Finishes

Coated surface	Polyester [25(-4μ/10μ) Primer [5±2μ] Film PVC 100-200 [μ]
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## Fire test railways

EUROPE  
[EN 45545-2:2013]  
R1-2-3-6-7-8-9-10-11-12-17-19-21  
for HL1, HL2 and HL3 levels

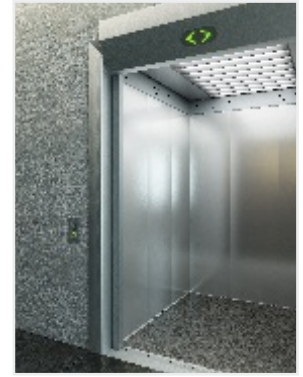
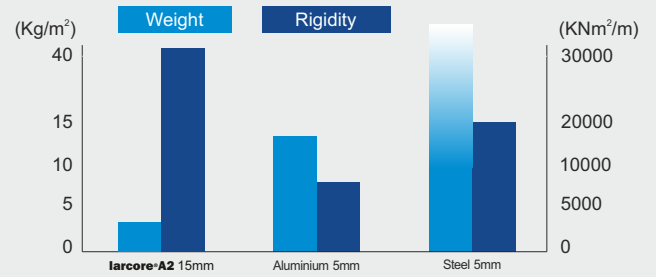
SPAIN  
[UNE EN 23721-27] M1

FRANCE  
[NF P 92501] M0 - [NF F 16-101] F1

## Fire test marine

IMO FTPC Part 1-2-5  
(Non-combustibility aluminium honeycomb core,  
smoke density and toxicity and  
surface flammability)

[MED-D-1691]  
C CLASS DIVISION  
RS TYPE APPROVAL  
TRANSPORT CANADA APPROVAL  
US COAST GUARD APPROVAL



## Transport & Industry

New projects in marine, railways, trucks, elevators, buses, aircrafts and other applications will get lighter, stronger, more rigid and energy efficient constructions. **larcore®** gets a perfect balance between weight, rigidity and fireproofing classification being an ideal material for the manufacture of transport and industrial components.

**larcore®** features the most demanding certifications for these sectors.

Advantages

**larcore**<sup>®</sup>



**FR PANEL 4mm**

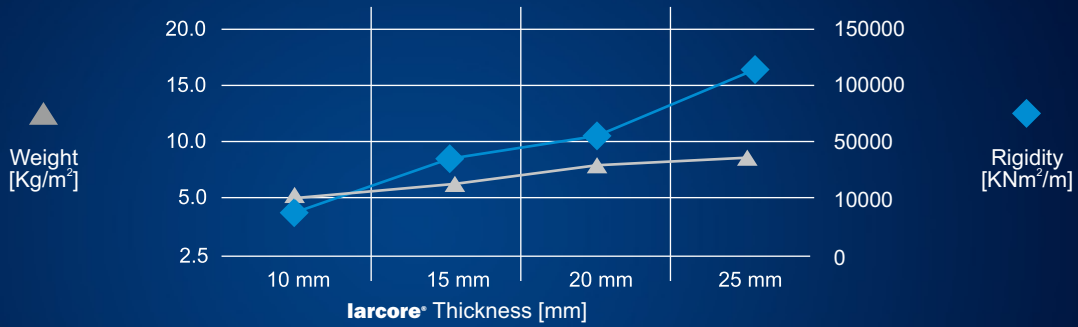
- ✓ 50% lighter
- ✓ 10 times more rigid
- ✓ Less sub-structure
- ✓ Modulacions in 2000mm width

**ALUMINIUM 5mm**

- ✓ 70% lighter
- ✓ 20% more rigid
- ✓ Less sub-structure
- ✓ More inertia

**STEEL 5mm**

- ✓ 90% lighter
- ✓ 10% more rigid
- ✓ Less sub-structure
- ✓ More inertia



[www.alucoil.com](http://www.alucoil.com)

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