









Aluminium composite panels for architectural wall cladding

larson fr° aluminium composite panel, is a high-tech product for architectural façade cladding. It is formed by two aluminium sheets, 5005 alloy, bonded by a mineral fire retardant (FR) core. Thanks to internal developments of our R + D department in Miranda de Ebro, Spain, Alucoil* has matured a core that delays panel combustion which allows this material to achieve B-s1,d0⁽²⁾ classification, according to UNE-EN 13501-1 standard.

Alucoil* also manufactures larson pe* composite panel, formed, as well, by two aluminium sheets 5005 alloy but bonded by a thermoplastic resin core (polyethylene PE). This product is meant to be used only in low buildings, canopies, signalization and corporate identity. (Alucoil* does not recommend the use of this product in high rise building, limited by specific standards in each country).

larson*, doubles that of the industry standard parameters for any ACM product. It can be easily machined, transformed, drilled, perforated or curved. Its strength by design does not however limit its breadth of design capabilities. For this reason, it has the widest range of coated finishes in the market from the highest quality in liquid PVdF 70% Kynar 500 2 layers with COASTAL PRIMER 31µ or 3 layers 37µ.

larson fr°	Aluminium composite panel features	larson pe°
3 / 4 / 6 [mm]	Panel thickness	3 / 4 / 6 [mm]
6,14 / 7,78 / 11,06 [kg/m²]	Panel weight	4,66 / 5,56 / 7,36 [kg/m ²]
0,5 [mm]	Aluminium thickness	0,5 [mm]
1583 / 3070 / 8630 [mm ⁴ /m]	Moment of inertia "I"	1346 / 2637 / 6446 [mm ⁴ /m]
1108 / 2150 / 6041 [kNcm²/m]	Rigidity "EI"	942 / 1846 / 4512 [kNcm²/m]
1000 - 1250 - 1500 [mm]	Standard width	1000 - 1250 - 1500 [mm]
2000 - 8000 [mm]	Min / max length	2000 - 8000 [mm]
MINERAL FIRE RESISTANT	Core	POLYETHYLENE
B-s1,d0 ⁽²⁾ [UNE EN 13501-1]	Reaction to fire test	M1 [UNE 23717 - NF P92-501] CLASS E [EN 13501-1] CLASS 0 [BS 476-6 & BS 476-7]
70000 ^(*) [N/mm ²]	Modulus of elasticity ^(*) "E"	70000 ^(*) [N/mm ²]
125 ^(*) [N/mm ²]	Ultimate tensile strength ^(*) "R _m "	125 ^(*) [N/mm ²]
80 ^(*) [N/mm ²]	Elasticity limi ^{t(*)} "R _{p0,2} "	80 ^(*) [N/mm ²]
4 ^(*) [%]	Elongation(*) "%"	4 ^(*) [%]
5005	Aluminium alloy	5005
2,3 mm/m Δ100°C	Aluminium thermal expansion	2,3 mm/m Δ100°C
a) PVdF 70% kynar 500 2 layers with COASTAL PRIMER 31µ b) PVdF 70% kynar 500 3 layers 37µ	Coated surface	a) PVdF 70% kynar 500 2 layers with COASTAL PRIMER 31µ b) PVdF 70% kynar 500 3 layers 37µ

⁽¹) Aluminium features - Extended technical data sheet under request - (²) Alucoil's vertical riveted & 45mm cassette installation systems

















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Installation systems & certifications

Alucoil* offers several installation systems for composite panels recognized under the CE marking, being the first company in the world to obtain that designation. Additionally, **Alucoil*** has several certifications worldwide such as ETA (European Technical Assesment – valid in 34 countries), EPD (Environmental Product Declaration), DIT, Avis Technique, LNEC, ITB, TZUS, BBA, DIBt, VKF, Opytnoe, Intertek North America, Incerc, Certifire (UK) and CODEMARK Australia/NZ.

European Technical Assessment - ETA 14/0010 of 24/03/2014 - Alucoil® Suspended Cassette & Alucoil® Riveted Boards









