



1. Protective film
2. Aluminium
3. Mineral FR Core
4. Aluminium



Fire Class Architectural **B-s1, d0** according **EN 13501-1**

larson® FR aluminium composite panel, is a high-tech product for architectural façade cladding. It is formed with two aluminium sheets, 5005 alloy, bonded by a mineral fire retardant (FR) core. **Alucoil®** has developed a core that delays panel combustion which allows this material to achieve **B-s1,d0** classification, according to the **EN 13501-1** standard.

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

larson® 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.

PANEL FEATURES	larson® FR	larson® PE
Panel thickness	3 / 4 / 6 (mm)	3 / 4 / 6 (mm)
Panel weight	6,14 / 7,78 / 11,06 (kg/m ²)	4,66 / 5,56 / 7,36 (kg/m ²)
Aluminium thickness	0,5 (mm)	0,5 (mm)
Moment of inertia "I"	1583 ⁽¹⁾ / 3070 / 8630 (mm ⁴ /m)	1346 ⁽¹⁾ / 2637 / 6446 ⁽¹⁾ (mm ⁴ /m)
Rigidity "EI"	1108 ⁽¹⁾ / 2150 / 6041 (kNcm ² /m)	942 ⁽¹⁾ / 1846 / 4512 ⁽¹⁾ (kNcm ² /m)
Standard width	1000 - 1250 - 1500 (mm)	1000 - 1250 - 1500 (mm)
Min / max length	2000 - 8000 (mm)	2000 - 8000 (mm)
Core	MINERAL FIRE RESISTANT	POLYETHYLENE
Reaction to fire test	B-s1,d0⁽⁴⁾ EN 13501-1 BS 8414-1⁽⁵⁾ Full scale test NFPA 285⁽⁶⁾ Full scale test	CLASS E EN 13501-1

larson® FR/PE	
Modulus of elasticity "E"	70000 ⁽²⁾ (N/mm ²)
Ultimate tensile strength "R _m "	125<R _m <185 ⁽²⁾ (N/mm ²)
Elasticity limit "R _{p0,2} "	80<R _{p0,2} <120 ⁽²⁾ (N/mm ²)
Elongation "A"	>3 ⁽²⁾ (%)
Aluminium alloy	5005 ⁽³⁾ EN 573-3
Aluminium thermal expansion	2,3 mm/m Δ100°C
Coated surface	a) PVdF 70% kynar 500 2 layers COASTAL PRIMER 31µ b) PVdF 70% kynar 500 3 layers 37µ

⁽¹⁾Estimated values while lab results arrive. ⁽²⁾Aluminium features. ⁽³⁾Alunatural finishes - alloy 3000. ⁽⁴⁾Alucoil's vertical riveted & 45mm cassette installation systems. ⁽⁵⁾Details of tested constructive system appear in Tecnalia's 070717-002A report. ⁽⁶⁾Details of tested constructive system appear in Intertek's 102936114SAT-004B report. Extended technical data sheet available upon request.