

**Aluminum Composite Panels**  
*Top Quality in ACM - Worldwide*



**larson**<sup>®</sup>  
by Alucoil<sup>®</sup>



**Alucoil North America**



# Alucoil<sup>®</sup> North America

**Alucoil North America** is dedicated to the manufacturing of top quality aluminum composite panels (ACM) for building and construction applications such as wall cladding, signage, and corporate imaging design. Located in Manning, South Carolina USA, its 48,000 square foot facility boasts two continuous process manufacturing lines capable of producing both polyethylene (PE) and fire retardant (FR) core panels.



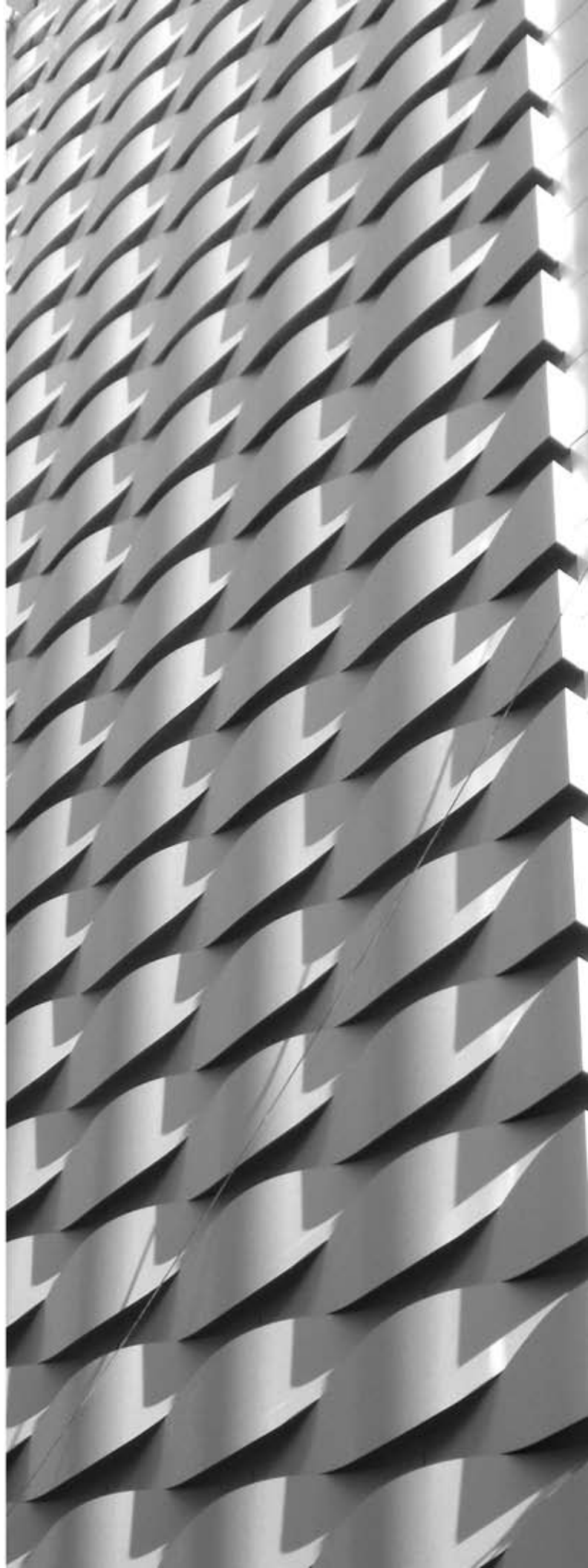
*Alucoil North America in Manning, South Carolina USA*

It is part of the **Alucoil S.A.** group of businesses - a top-tier manufacturer of high-tech aluminum products for building & construction, transportation, and industrial applications. Based in Miranda de Ebro, Spain, its 300,000 square foot facility possesses a diverse line of unique product and coating technologies that complement its core **larsen by Alucoil<sup>®</sup>** ACM product line.



*Schluter Project, Nevada USA*

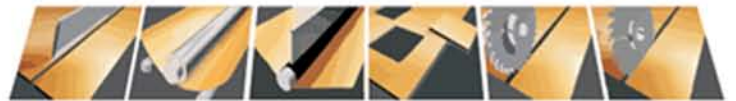
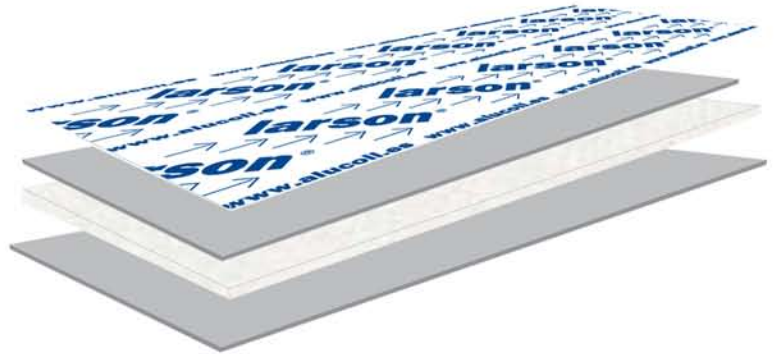
**Alucoil** is backed by the **Alibérico Group**, a privately held leader in the world of aluminum with over 1000 employees worldwide. Based in Spain, it is composed of 17 companies and 35 affiliates with exports to over 45 countries on 5 continents. It manufactures products for key aluminum sectors such as packaging, coil coating, transportation, building products, and many others. With US\$300 million plus in annual sales, it transforms over 100,000 tons of aluminum annually.





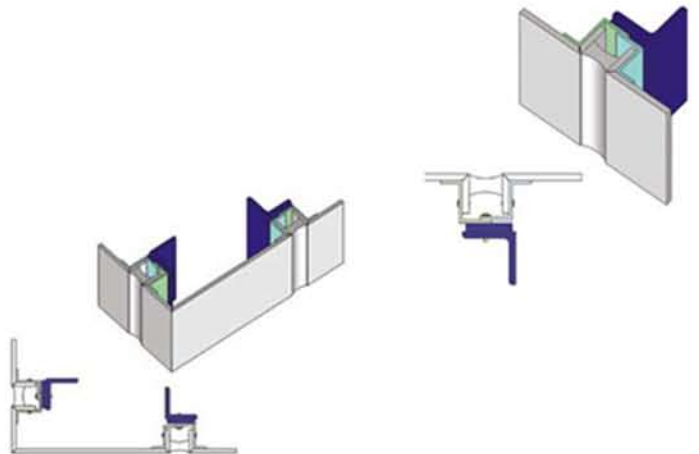
## Aluminum Composite Panels - ACM

**larson by Alucoil®** ACM is a fully tested and certified, top quality architectural wall cladding panel providing the strength and flexibility required for the most demanding design criteria. Made in Manning, South Carolina USA, it is a continuous process manufactured ACM panel consisting of two sheets of coil coated 3105 H24 alloy aluminum bonded to either a polyethylene (PE) or a mineral filled Fire Retardant (FR) extruded core.



### Applications

**larson by Alucoil®** ACM panels are fabricated and installed using a variety of techniques and systems common in the exterior wall cladding industry. Typically, panels are fabricated via rout & return and installed with wet-seal, dry-seal, rain-screen wall systems, or integrated into curtain wall systems.





## Premium Coil Coated Finishes

Powered by Duranar® 30-Year Exterior Coatings

**larson by Alucoil®** ACM is coil coated utilizing Duranar® coatings from PPG. Backed by a 30 year exterior performance warranty, these (PVDF) fluoropolymer paint finishes contain 70% Kynar 500®/Hylar 5000® resins and are formulated to meet or exceed industry performance requisites such as AAMA 620.

### 25 Standard Architectural Colors

**larson by Alucoil®** ACM panels are available in 25 standard colors matched to a combination of popular ACM and steel foam panel colors – enabling greater flexibility in design choice.

The offering includes:

- 12 Solid, 2-coat finishes
- 7 Mica, 2-coat finishes
- 6 Metallic, 3-coat finishes
- 62" standard width for all standard colors
- 50" and 39.37" widths on select colors
- Finished panel inventory in key colors and sizes

### Bright Vibrant Colors for Corporate ID and More

**Alucoil North America** has partnered with Beckers to provide high quality paint systems that deliver bright, vibrant colors in gloss ranges from 10% to 80%, as well as 2-coat and 3-coat metallic finishes. Performance warranties range from 10 to 20 years depending on specific color formulation – making them ideal for meeting the dynamic and demanding requirements of corporate branded colors which, when combined with the benefits of ACM, make building design part of projecting a strong brand and image.

### Greater Flexibility in Custom Colors

With a 1,000 square foot minimum for custom color production orders, **larson by Alucoil®** takes a different approach to addressing a growing trend in the market. Available in 62", 50", and 39.37" widths, there are no hidden set up charges – just one price for the quantity required.



## A Product Line Full of Possibilities

**Alucoil** S.A. in Spain is uniquely positioned to supply specialty composite products and finishes worldwide including:

**larson wood®:** 6 wood grain finishes coil coated with full strength Kynar 500® / PVdf resin coating technology.

Colonial Red	Ahorn	Oak
Walnut	Wengé	Sunglow

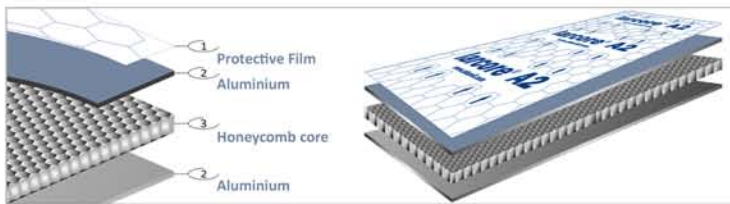
**larson metals®:**

Stainless Steel	Copper	Brass
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**larson specials®:** Imitation zinc, slate, copper patina, color shifting paints, corten steel effect and exterior grade mirror finish.

**Almirr®:** Multilaminar Aluminium Mirror for solar energy applications.

**larcore® A2:** A continuous process manufactured, 100% aluminum honeycomb composite panel. It is available in a standard 1 inch thick configuration in standard or custom lengths - making it ideal as a spandrel in-fill panel between curtain wall mullions.



larcore® A2	Standard	Range
Width	62" (1575mm)	39.37" to 78.75" (1000mm to 2000mm)
Lengths	196" (4978mm)	59" to 432" (1.5 m to 11 m)
Skins	0.040"/0.040" (1mm / 1mm)	0.032" to 0.060" (0.7mm to 1.2mm)
Panel Thickness	1" (25.4mm)	5/16" to 13/16" (8mm to 30mm)
Painted Finish	PVdF both sides	Single or both sides

### Comparing larcore® A2 10mm with other materials

Vs. ACM 4mm FR	Vs. 5mm Aluminum	Vs. 5mm Steel
✓ 100% Aluminum	✓ 70% Lighter	✓ 90% Lighter
✓ 50% Lighter	✓ 20% More rigid	✓ 10% More rigid
✓ 10x More rigid	✓ Less sub-structure	✓ Less sub-structure
✓ 78.75" / 2 meter widths	✓ Greater moment of inertia	✓ Greater moment of inertia



#	PROPERTY	TEST	UNITS	4MM FR CORE	3MM LDPE CORE	4MM LDPE CORE	6MM LDPE CORE
1	Thickness	-	mm in	4.0 0.157	3.0 0.118	4.0 0.157	6.0 0.236
2	Weight	-	kg/m <sup>2</sup> lb/ft <sup>2</sup>	7.18 1.47	4.55 0.93	5.47 1.12	7.32 1.5
3	Temperature Range	-	°C °F	-48 to +80 -55 to +175	-48 to +80 -55 to +175	-48 to +80 -55 to +175	-48 to +80 -55 to +175
4	Bond Strength	ASTM D1781	Nm/m in-lb/in	≥100 ≥22.5	≥100 ≥22.5	≥100 ≥22.5	≥100 ≥22.5
5	Coefficient of Expansion	Based on aluminium skins	mm/mm/°C in/in/°F	2.36 x 10 <sup>-5</sup> 1.31 x 10 <sup>-5</sup>	2.36 x 10 <sup>-5</sup> 1.31 x 10 <sup>-5</sup>	2.36 x 10 <sup>-5</sup> 1.31 x 10 <sup>-5</sup>	2.36 x 10 <sup>-5</sup> 1.31 x 10 <sup>-5</sup>
6	Core Density	ASTM D792	kg/m <sup>3</sup> lb/in <sup>3</sup>	1500 5.42 x 10 <sup>-2</sup>	920 3.32 x 10 <sup>-2</sup>	920 3.32 x 10 <sup>-2</sup>	920 3.32 x 10 <sup>-2</sup>
7	Flame Spread Index	ASTM E84	-	Pass = Class A	Pass = Class A	Pass = Class A	Pass = Class A
8	Smoke Developed Index	ASTM E84	-	Pass = Class A	Pass = Class A	Pass = Class A	Pass = Class A
9	Intermediate Scale Multi-Story Test	NFPA 285	-	30 minutes passed	-	-	-
10	Interior Room Corner Burn	UL 1715	-	15 minutes passed	-	-	-
11	Fire Test of Building Construction & Materials	ASTM E119	-	1 hour passed	-	-	-
12	Flatwise Tensile Strength	ASTM C297	Mpa psi	-	-	-	6.17 894
13	Flexural Evaluation	ASTM D7249	Mpa psi	68,115 9.879 x 10 <sup>6</sup>	-	69,685 10.107 x 10 <sup>6</sup>	62,663 9.089 x 10 <sup>6</sup>
14	Metal Skin Specifications	ASTM B 209	-	3000 Series	3000 Series	3000 Series	3000 Series
15	Metal Skin Ultimate Tensile Strength	ASTM E8	Mpa ksi	≥159 ≥23	≥159 ≥23	≥159 ≥23	≥159 ≥23
16	Metal Skin Yield Strength	ASTM E8	Mpa ksi	≥131 ≥19	≥131 ≥19	≥131 ≥19	≥131 ≥19
17	Metal Skin Thickness	-	mm in	0.5 ± 0.05 Nominal 0.020	0.5 ± 0.05 Nominal 0.020	0.5 ± 0.05 Nominal 0.020	0.5 ± 0.05 Nominal 0.020
18	Metal Skin Finishes	-	-	70% PVdF	70% PVdF	70% PVdF	70% PVdF
19	Core Material Specifications	-	-	Polymer w/fire retardant filler	Polyethylene	Polyethylene	Polyethylene

**Notes:**

- All testing and certifications are performed by accredited third party testing agencies.
- Test information contained in the above chart is representative of **Alucoil North America, LLC** FR and PE ACM and is provided for technical evaluation purposes.



## Paint Finish Availability

	Duramar®	Beckrytech 5001®	Beckrytech 2001®
Warranty	30 years	20 years	10 years
Resin Type	70% PVdF	Super Durable Polyester	Super Durable Polyester
Gloss Range	20% to 35%	25% to 50%	10% to 80%
Colors	Solids, Miccas, Metallics	Solids, Metallics	Bright Colors, Solids, Metallics
Application	Architectural, all other	Architectural, Corporate ID	Corporate ID, Accent Colors

## Product Availability

Core	PE - Polyethylene FR- Fire Retardant
Thicknesses	3mm (0.118 in.) 4mm (0.157 in.) 6 mm (0.236 in.)
Widths	39.37" (1000 mm) 50" (1270 mm) 62" (1575 mm)
Lengths	96" min. - 252" max. (2438mm - 6400mm)

## Building Code Recognition

Intertek Design Listing	Consult website
Canada	CAN S102, CAN S134
Municipal	Florida Product Approval New York City Los Angeles Research Report

Please check our website for up to date listings and approval reference numbers at:  
[www.alucoiltonorthamerica.com](http://www.alucoiltonorthamerica.com)

## LEED (Leadership in Energy and Environmental Design)

**larson by Alucoil®** composite panels qualify for point awards under the LEED International Building Industry Certification Program. Complete information and calculations on our entire product line can be downloaded from our website at [www.alucoiltonorthamerica.com](http://www.alucoiltonorthamerica.com).

larson by Alucoil® 4mm PE ACM	% Weight	%Post Content	%Pre Content	TOTAL % Content
Aluminium Skin	50.02	12.5	65	45.0
Polyethylene Core	49.95	0	50	25.0
<b>TOTAL</b>	<b>100.00</b>	<b>6.3</b>	<b>57.5</b>	<b>35.0</b>

**MR Credit 4:** Recycled Content. One point is awarded if the sum of post-consumer recycled content plus one half of the pre-consumer content is at least 10%. If the same value is at least 20% as determined by the same method then 2 points are awarded.

Product Summary	Total Content (100% post + 50% Pre)	LEED Points
3 mm PE	37%	2 points
4 mm PE	35%	2 points
4 mm FR	17.3%	1 point
6 mm PE	32.5%	2 points



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