Technical Information

Engineering Properties

Top Quality in ACM - Worldwide

#	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^2 lb/ft^2	7.18 1.47	4.55 0.93	5.47 1.12	7.32 1.5
3	Temperature Range	-	ºC ºF	-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	Coeficient of Expansion	Based on aluminium skins	mm/mm/ºC in/in/ºF	2.36×10^{-5} 1.31×10^{-5}	2.36×10^{-5} 1.31×10^{-5}	2.36×10^{-5} 1.31×10^{-5}	2.36×10^{-5} 1.31×10^{-5}
6	Core Density	ASTM D792	kg/m^3 lb/in^3	1500 5.42×10^{-2}	920 3.32×10^{-2}	920 3.32×10^{-2}	920 3.32×10^{-2}
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 9.879×10^6	-	69,685 10.107×10^6	62,663 9.089×10^6
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:

1. All Testing and Certifications performed by third party accredited testing agencies.
2. 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.

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Paint Finish Availability

	Duranar®	Beckrytech 5001®	Beckrytech 2001®
Warranty	30 years	20 years	10 years
Resin Type	70% PVdF	Super Durable Polyester	Super Durable Polyester
Gloss Range	20% - 35%	25% to 50%	10% - 80%
Colors	Solids, Micas, 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 MEA Los Angeles Research Report

Please, check our website for up to date listings and approval reference numers at:
www.alucoilnorthamerica.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 www.alucoilnorthamerica.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
TOTAL	100.00	6.3	57.5	35.0

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