



Aluminum Composite Panel (Ten Year) Bond Integrity Warranty

This warranty ("Warranty") is provided by Alucoil® North America, LLC ("Alucoil") to _____ ("Owner") having offices at _____, and relates to the _____ ("Project") located at _____.

Alucoil warrants, subject to the terms and conditions stated below, that the larson by Alucoil® Panels (the "Panels") produced by Alucoil for installation on the Project will not delaminate as a result of manufacturing defects.

1. The Warranty period is ten (10) years and shall begin six (6) months from Alucoil's initial shipment or at the time of substantial completion (the "Warranty Term"), whichever occurs first. Should any Panels exhibit delamination during the term of this Warranty, Alucoil will at its sole option and discretion repair or replace the subject Panels without charge to Owner.
2. The warranty period for any panels repaired or replaced under this Warranty shall be the remaining portion of the original warranty.
3. Color variation may occur between replacement panels and those originally installed on the Project. This variation may be due to paint formulation changes and/or normal weathering and aging occurring on the originally installed Panels. Such color variation is not indicative of a defect in either the replacement Panels or the originally installed Panels.
4. Alucoil reserves the right to discontinue or modify its larson by Alucoil® aluminum composite material. Should the original Panels no longer be available, Alucoil will substitute a product of comparable quality. It is also possible that the originally supplied color is no longer available. In this case Alucoil will substitute a panel of a currently available color.
5. This Warranty covers only delamination which occurs during normal use and service. Delamination which is a result of other causes including but not limited to improper fabrication or installation, corrosive environments, incompatible cleaning chemicals, dissimilar metals, physical abuse and vandalism, earthquake, lightning, windstorms, wind borne projectiles, fire, structural failures or settlement are not covered by the Warranty.
6. Alucoil agrees to repair or replace, at its sole cost and discretion, any Panels of such defects as shall have been proven by Owner to the satisfaction of Alucoil not to be in compliance with the aforesaid warranty. The above obligation of Alucoil is expressly conditioned upon:



- a. Receipt by Alucoil of notification in writing from Owner of any claimed non-compliance with this warranty within thirty (30) days after such non-compliance first comes to the attention of Owner and within the Warranty Term; and
- b. Full compliance by Owner with instructions given by Alucoil in writing, and normal practices of the design, construction and real property industries and of the industry to which Owner belongs with respect to handling, delivering, storing, processing treating, and maintaining such Panels.

Any of the above two conditions shall be construed as a waiver by Owner of any right it may have to enforce this warranty.

7. The Warranty does not cover any attack to exposed edges caused by UV radiation.
8. This Warranty constitutes Owner's exclusive remedy and Alucoil's sole liability as set forth above. Except as provided herein, Alucoil makes no warranty or guarantee, express or implied, including without limitation, WARRANTIES OF FITNESS AND MERCHANTABILITY. Further, Owner acknowledges that Alucoil shall have no other liability to any other person, firm, or corporation with respect thereto, including, without limitations, any liability for indirect, incidental, punitive, consequential or resultant damages, whether based upon breach of warranty or negligence.
9. This Warranty is issued only to the original property Owner and is not transferable and non-assignable.
10. This warranty shall be subject to and shall be enforced and construed according to the laws of the State of South Carolina. Any legal action to enforce or construe any portion of this warranty shall be brought in a Court of competent jurisdiction in Clarendon County, South Carolina.
11. If any provisions of this warranty shall be held by any Court of competent jurisdiction to be invalid or unenforceable in whole or in part, the remaining provisions of this warranty shall be effective to the same extent as if such invalid or unenforceable provision had never been contained herein.
12. Alucoil reserves the right to terminate this warranty at any time upon thirty (30) day written notice. However termination shall not affect the rights accruing to Owner prior to such termination.



13. The terms hereof shall constitute the entire agreement and understanding of the parties hereto respecting the subject matter hereof and no provision or statement contained at any time in any other writing, including without limitation, owners, customers and/or contractors purchase orders or Alucoil's acceptance forms shall be effective to change the provisions hereof, unless contained in a subsequent agreement, in writing, signed by both Owner and Alucoil expressly stating that it is intended thereby to modify or supplement this instrument.

Accepted by:
Alucoil® North America, LLC

Randy Donley-Operations/Plant Mgr

Date: _____



Limited 30 Year Paint Finish Warranty

This limited warranty ("Limited Warranty") is provided by Alucoil North America, LLC ("Alucoil") to _____ ("Owner") having offices at _____, and relates to the _____ ("Project") located at _____.

Alucoil North America, LLC ("Alucoil") warrants that the painted finish on the Product listed above will retain its Film integrity, Color and Chalk, as defined below, after the installation of the painted MCM consistent with the table attached hereto.

Definitions:

1. Film Integrity shall be defined as the absence of peeling, checking, chipping or cracking, except for such crazing or slight cracking as may occur on tightly rollformed edges or brake bends at the time of forming the pre-painted sheet.
2. Color Change shall be defined as freedom from fade or change as warranted in ΔE units calculated in accordance with ASTM D2244-02, paragraph 6.2.2 CIE $L^*a^*b^*$, 10° Observer, specular included. Color Change is measured on an exposed painted surface that has been cleaned of surface soils and chalk and then compared to corresponding values measured on the original or unexposed coated surface.
3. Chalk or Oxidation shall be defined as a numerical rating as warranted when measured in accordance with the standard procedures specified in ASTM D4214-98.

THIS LIMITED WARRANTY IS SUBJECT TO THE FOLLOWING CONDITIONS AND LIMITATIONS. ALL OF THE FOLLOWING CONDITIONS AND ADDITIONAL CONDITIONS CONSTITUTE MATERIAL TERMS OF THIS LIMITED WARRANTY AND FAILURE TO SATISFY ANY ONE OR MORE ARE OF THE CONDITIONS OR ADDITIONAL CONDITIONS BY OWNER OR THEIR AGENTS OR REPRESENTATIVES SHALL RENDER THIS LIMITED WARRANTY NULL AND VOID AND RELEASE ALUCOIL FROM ITS OBLIGATIONS HEREUNDER.

Limitations:

1. Non-uniform color changes that result from unequal exposure to sunlight and/or the elements are not covered by this Limited Warranty unless such color change meets the definition of Color Change above.
2. This Limited Warranty does not extend to, or cover: (a) damage to the Product occasioned by improper storage of the coated MCM prior to installation or moisture or other contamination detrimental to the Product because of improper packaging, handling, shipping, processing and/or installation; or (b) damage to the Product which suffers from improper forming, fabrication, cut edge exposure, corrosion of the substrate or any other condition between the substrate and coating which causes coating degradation or delamination or (c) any external contaminant or condition which causes coating degradation or delamination.



3. This Limited Warranty does not cover damage or failure of Product which damage or failure is attributable to acts of God, falling objects, external forces, explosions, fire, or other such similar or dissimilar occurrences beyond Alucoil's control.
4. Owner's sole and exclusive remedy, and Alucoil's liability under this Limited Warranty will be limited, at Alucoil's option, to recoating or replacing the MCM with the Product claimed to be defective, including re-installation costs. Under no circumstances will Alucoil be held liable for any incidental, special, punitive or consequential damages.
5. Alucoil must approve any recoating of the Metal substrate through submission of three (3) estimates that each includes the name of the coating products to be used, labor and material costs as well as any other costs associated with the work for refinishing or replacing the metal substrate. Alucoil reserves the right to approve or negotiate the contract for such recoating or replacement work if the initial estimate is unacceptable to Alucoil. In no event will the original applicable warranty period set forth in the warranty table be extended by a warranty claim.
6. In the event of any subsequent failure of any recoated or replaced coated MCM, the Owner shall first make any claims against the supplier of those replacement materials.
7. The warranty for any refinished or replaced metal substrate shall be only for the remainder of the original warranty period applicable to the original coated metal substrate.
8. EXCEPT AS EXPRESSLY PROVIDED ABOVE, IN NO EVENT SHALL ALUCOIL BE LIABLE UNDER ANY THEORY OF RECOVERY, WHETHER BASED ON NEGLIGENCE OF ANY KIND, STRICT LIABILITY OR TORT, FOR ANY DIRECT, INDIRECT, SPECIAL, PUNITIVE INCIDENTAL OR CONSEQUENTIAL DAMAGES IN ANY WAY ARISING OUT OF THE PURCHASE OF THE PRODUCT OR FROM ANY POSSESSION OR USE MADE OF A PRODUCT.
9. This Limited Warranty is given solely to the Owner and is non-transferable and non-assignable.
10. The applicable warranty period shall be limited to, and shall in no event extend beyond, the warranty period as set forth in the warranty table.

EXCEPT AS SET FORTH HEREIN, ALUCOIL MAKES NO OTHER EXPRESS WARRANTIES AND DISCLAIMS ANY IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE, WITH RESPECT TO ANY OF THE PRODUCTS.

Miscellaneous:

1. All notices given under or pursuant to this Agreement shall be in writing and documented in any of the following forms: personally delivered, via email, fax, or certified mail, postage prepaid, return receipt requested, to the party to whom such notice is to be given as follows:

Alucoil	Alucoil North America LLC 1976 Joe Rogers Jr Blvd Manning, SC 29102 ATTN: Warranties Department
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2. No terms or conditions other than those stated herein, and no agreement or understanding, oral or written, in any way purporting to modify this Limited Warranty shall be binding on Alucoil unless made in writing and signed by its authorized representative.



3. This Agreement shall be governed by and construed in accordance with the laws of the State of South Carolina, United States of America without giving effect to any choice of conflict of law provision or rule that would cause the application of the law of the jurisdiction other than South Carolina.

Alucoil North America, LLC

Signature: _____

By: Samuel Chastain – Vice President & General Manager

Date: _____



WARRANTY TABLES

Warranty in years for all Exposure Conditions			
Type of Environment or Location	Film Integrity (Years)	Color $\Delta E \leq 5.0$ (Years)	Chalking ≥ 8 Rating (Years)
Residential, Commercial and School – Buildings used for habitation Distribution Centers, Hotels, Shopping Malls, Office Buildings Assembly Factories and Schools located in rural or residential areas	20	20	20
Industrial – Steel mills, Power Generating Stations, Oil Fields, Oil Refineries, Ore Mines, Chemical Plants, Paper Mills, or other unusual environmental exposure	10	No Warranty	7
Severe Marine – Less than one mile of salt water. (Standard two coat system)	15	15	15
Severe Marine – Less than one mile of salt water. EXTENDED WARRANTY REQUIRES: Thick film primer over steel, not required over aluminum Clear coat required over both aluminum and steel	20	20	20

THIS WARRANTY IS FOR PRODUCTS USED FOR TRIM AND SIDEWALL APPLICATIONS ONLY

THIS LIMITED WARRANTY APPLIES ONLY TO PRODUCTS SOLD BY ALUCOIL USED IN THE CONTINENTAL UNITED STATES, ALASKA, CANADA, AND MEXICO (HAWAII AND THE CARIBBEAN EXCLUDED) unless Alucoil specifically and in writing notifies the Customer otherwise prior to sale of the Product

Alucoil retains the right to determine the Environmental Location condition during a warranty investigation and may deem the specific warranty performance based on close proximity to one of the severe environmental conditions noted above.

This limited warranty is intended for use only for those applications shown above. Customer is required to consult with Alucoil before any installation takes place if this product is used for a different end use.

For the purpose of this Limited Warranty, Standard Colors use a group of pigments suitable for the majority of color matches. Some color requests cannot be formulated with durable pigments and will not carry the above mentioned warranty.

FOR ALL INDUSTRIAL APPLICATIONS - Customer is required to consult with Alucoil before any installation takes place and Alucoil reserves the right to change the terms of this warranty based on the findings of such environmental exposures and/or conditions.

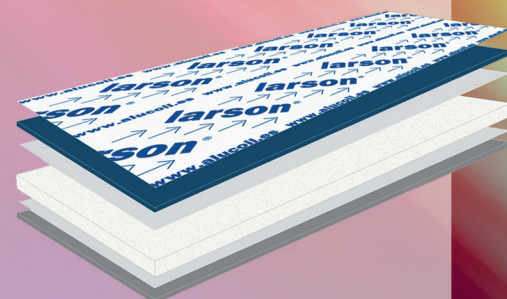
FOR ALL SEVERE MARINE APPLICATIONS - Owner is required by Alucoil to perform annual maintenance of the building in the form of a sweet water rinse (tap water). Owner is required to keep records of such maintenance for the warranty to be enforceable.

ENGINEERING PROPERTIES SHEET

#	Property	Test	Units	3mm FR Core	4mm FR Core	6mm FR Core	3mm LDPE Core	4mm LDPE Core	6mm LDPE Core
1	Thickness		mm in	3.0 0.118	4.0 0.157	6.0 0.236	3.0 0.118	4.0 0.157	6.0 0.236
2	Weight (calculated)		kg/m ² lb/ft ²	5.55 1.14	7.05 1.45	10.05 2.06	4.55 0.93	5.47 1.12	7.32 1.50
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	-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	≥100 ≥22.5	≥100 ≥22.5
5	Coefficient of Expansion	Based on aluminum skins	mm/mm/°C in/in/°F	2.36 x 10 ⁻⁵ 1.31 x 10 ⁻⁵	2.36 x 10 ⁻⁵ 1.31 x 10 ⁻⁵	2.36 x 10 ⁻⁵ 1.31 x 10 ⁻⁵	2.36 x 10 ⁻⁵ 1.31 x 10 ⁻⁵	2.36 x 10 ⁻⁵ 1.31 x 10 ⁻⁵	2.36 x 10 ⁻⁵ 1.31 x 10 ⁻⁵
6	Core Density	ASTM D792	kg/m ³ lb/in ³	1500 5.42 x 10 ⁻²	1500 5.42 x 10 ⁻²	1500 5.42 x 10 ⁻²	920 3.32 x 10 ⁻²	920 3.32 x 10 ⁻²	920 3.32 x 10 ⁻²
7	Flame Spread Index	ASTM E84		Pass = Class A	Pass = Class A	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	Pass = Class A	Pass = Class A
9	Intermediate Scale Multi-Story Test	NFPA 285		Passed	Passed	–	N/A	N/A	N/A
10	Interior Room Corner Burn	UL 1715		Passed	Passed	–	N/A	N/A	N/A
11	Fire Test of Building Construction and Materials	ASTM E119		Passed	1 hr Passed	–	N/A	N/A	N/A
12	Flatwise Tensile Strength	ASTM C297	MPa psi	–	–	–	–	–	6.17 894
13	Ignition Temperature of Plastics	ASTM D1929	Flash Ignition		464°C (867°F) 476°C (889°F)			361°C (682°F) 410°C (770°F)	
14	Flexural Modulus	ASTM D7249	MPa psi	–	68,115 9.879 x 10 ⁶	–	–	69,685 10.107 x 10 ⁶	62,663 9.089 x 10 ⁶
15	Metal Skin Specifications	ASTM B209		3000 Series	3000 Series	3000 Series	3000 Series	3000 Series	3000 Series
16	Metal Skin Ultimate Tensile Strength	ASTM E8	MPa ksi	≥159 ≥23	≥159 ≥23	≥159 ≥23	≥159 ≥23	≥159 ≥23	≥159 ≥23
17	Metal Skin Yield Strength	ASTM E8	MPa ksi	≥131 ≥19	≥131 ≥19	≥131 ≥19	≥131 ≥19	≥131 ≥19	≥131 ≥19
18	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	0.5 ± 0.05 Nominal 0.020	0.5 ± 0.05 Nominal 0.020
19	Metal Skin Finishes			70% PVDF, FEVE or Polyester	70% PVDF, FEVE or Polyester	70% PVDF, FEVE or Polyester	70% PVDF, FEVE or Polyester	70% PVDF, FEVE or Polyester	70% PVDF, FEVE or Polyester
20	Core Material			Polymer w/fire retardant filler	Polymer w/fire retardant filler	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.
- 3 Both the FR and PE Core product meet ICC-ES AC25 Requirements.
- 4 Both the FR and PE Core products are listed with Intertek and can be accessed at: <https://whdirectory.intertek.com>
- 5 " - " indicates not tested
- 6 "N/A" not applicable
- 7 For a complete technical overview of all Alucoil North America Products, visit www.alucoilnorthamerica.com



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Tel: 803-505-6543
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Color Selection Guide



www.alucoil.com



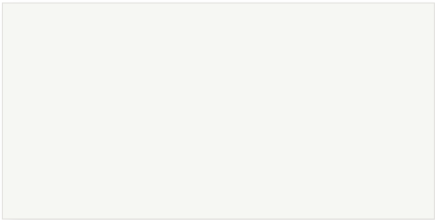


30 Year Architectural Coatings

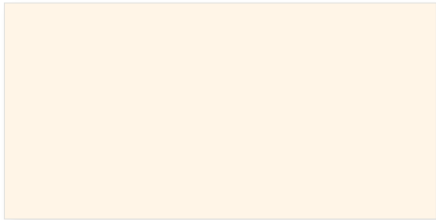
larson® by Alucoil® ACM is coil coated utilizing DURANAR® coatings from PPG. Backed by a 30-year exterior performance warranty, these (PVDF) fluoropolymer paint finishes contain 70% KYNAR® 500/ Hylar® 5000 resins and are formulated to meet or exceed industry performance requisites such as AAMA 620 and AAMA 2605. Our 29 standard colors are matched to a combination of popular ACM and steel foam panel colors – enabling greater flexibility and design choice.

Solid Color Series

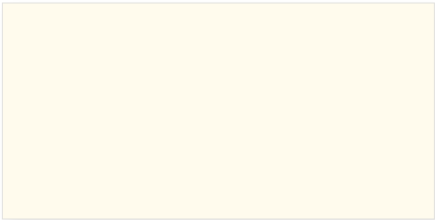
These *Durana*® 2-coat colors consist of a 0.2 mil primer and a 0.8 mil color coat, for a nominal dry film thickness of 1.0 mil.



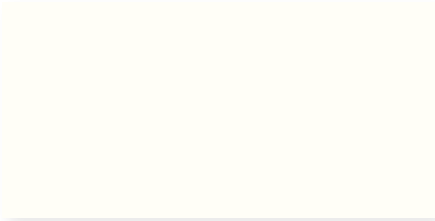
Regal White S-31



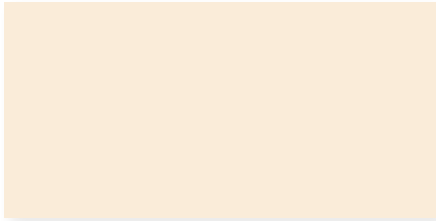
Off White S-91



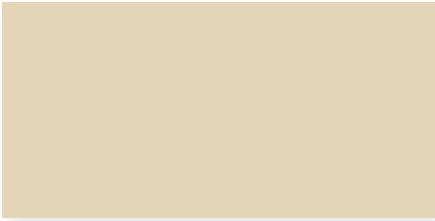
Bone White S-30



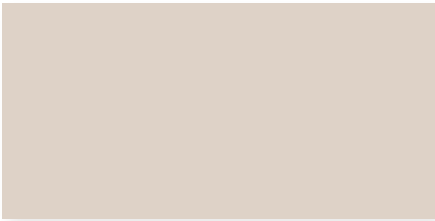
RVW White S-327



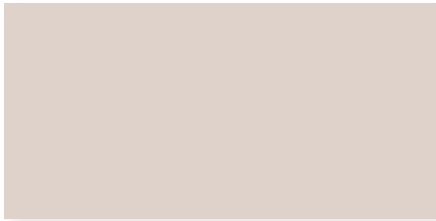
Oyster White S-70



Marble S-112



Sandstone S-84



Limestone S-58



Cadet Grey S-32



Charcoal S-381



Classic Bronze S-33



Classic Black S-34



Marakesh Red S-48

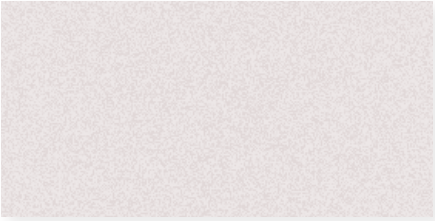


Deep Sea Blue S-74

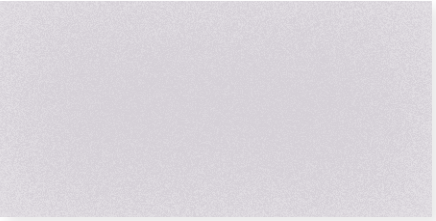
**Finished Panel Inventory:
ACM and Matching Flat Sheet**
All standard colors are available in 62" coil and inventoried ACM panels. Select colors are also available in 50" width. Matching 0.040" thick x 48" wide flat sheets are available in select standard colors. Please consult for finished goods inventory availability.

Mica Color Series

These *Durana*® 2-coat mica colors consist of a 0.2 mil primer and a 0.8 mil color coat, for a nominal dry film thickness of 1.0 mil. Mica flakes are suspended in the color coat – giving the appearance of a metallic finish.



Anodic Clear M-35



Platinum M-36



Silversmith M-115



Champagne Mica M-38



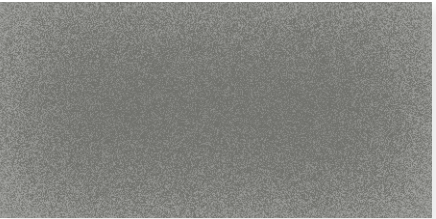
Champagne Pearl M-60



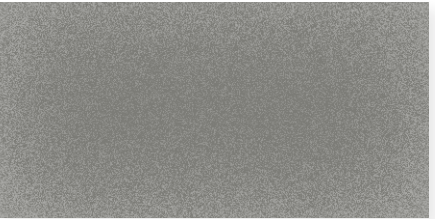
Champagne Bronze M-94



Aged Bronze M-367



Pewter Mica M-366



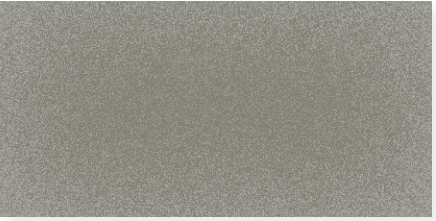
Medium Grey M-301

Metallic Color XL Series

These *Durana*® 3-coat metallic colors consist of a 0.2 mil primer, a 0.8 mil color coat, and a 0.5 mil clear coat, for a nominal dry film thickness of 1.5 mils.



Silver Metallic XL-25



Gun Barrel XL-382



Pewter Metallic XL-65



Champagne Metallic XL-26



Rustic Copper Metallic XL-27



Bright Copper Metallic XL-28

Mica and Metallic XL Colors are directional in nature therefore proper estimating and installation precautions should be taken to ensure that panels are all installed in the same direction. Directional arrows are printed on panel protective film to aid in this practice.

Due to the reflectivity of these finishes, optical perception of color tone may vary according to the angle from which panels are viewed, reflected light off of other structures, and different angles or planes on which panels are installed on a building elevation.

To ensure color consistency with these finishes, it is highly recommended to order all material required at the same time, be they in single or multiple widths.

LEED CALCULATIONS

Larson by Alucoil[®] Aluminum Composite Panels Rev LC 0112

The table below has been developed to provide information needed to determine earned certification points in the LEED[®] (Leadership in Environmental and Energy Design) Green Building Rating System[™].

Material and Resources

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.

larson by Alucoil[®] 3mm PE ACM	% Weight	% Post Content	% Pre Content	Total (100% Post + 50% Pre)
Aluminum Skins	60.23	12.5	65	45.0
Polyethylene Core	39.77	0	50	25.0
Total	100.00	7.5	59.0	37.0%

larson by Alucoil[®] 4mm PE ACM	% Weight	% Post Content	% Pre Content	Total (100% Post + 50% Pre)
Aluminum Skins	50.05	12.5	65	45.0
Polyethylene Core	49.95	0	50	25.0
Total	100.00	6.3	57.5	35.0%

larson by Alucoil[®] 6mm PE ACM	% Weight	% Post Content	% Pre Content	Total (100% Post + 50% Pre)
Aluminum Skins	37.4	12.5	65	45.0
Polyethylene Core	62.6	0	50	25.0
Total	100.00	4.7	55.6	32.5%

larson by Alucoil[®] 4mm FR ACM	% Weight	% Post Content	% Pre Content	Total (100% Post + 50% Pre)
Aluminum Skins	38.38	12.5	65	45.0
Fire Resistant Core	61.62	0	0	0.0
Total	100.00	4.8	24.9	17.3%



Alucoil North America, LLC

larson by Alucoil® 6mm FR ACM	% Weight	% Post Content	% Pre Content	Total (100% Post + 50% Pre)
Aluminum Skins	27.29	12.5	65	45.0
Fire Resistant Core	72.71	0	0	0
Total	100	3.4	17.7	12.3%

The total recycle content of Larson by Alucoil®ACM panels should be combined with other wall cladding system components in order to calculate the overall point qualification for a project.

MR Credit 5: larson by Alucoil®ACM panels are manufactured using material sourced from numerous suppliers with varying recycled contents and manufacturing locations. Therefore it is not possible to identify and quantify the initial extraction / harvest / recovery and manufacturing locations. Therefore it is recommended that larson by Alucoil® not be included in the calculation for this credit.

Innovation in Design ID Credit: Points are available for innovative design or exceptional performance per LEED requirements. The above average recycled content of some larson by Alucoil®ACM panel configurations may qualify for an Innovation in Design Credit.

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