

ALUMAGUARD® Cool Wrap Flexible Weather-Proofing Jackets



The *Alumaguard®* family of flexible insulation claddings: *Alumaguard®*, *Alumaguard® All-Weather* and *Alumaguard® Lite* are now available with the *Alumaguard® Cool Wrap* bright white environmentally-friendly surface finish.

The *Alumaguard® Cool Wrap* finish is designed for outdoor applications where high solar reflectance and emissivity are required. It is the perfect complement on rooftop ductwork and piping when the architect/engineer has specified a white Cool Roof waterproofing membrane.

The *Alumaguard® Cool Wrap* finish meets the initial solar reflectance and emissivity requirements of the Cool Roof Rating Council (CRRC).

The *Alumaguard® Cool Wrap* finish does meet California Title 24 requirements for Cool Roofing. See Table for properties and test results.

PRODUCTS

Alumaguard®, *Alumaguard® All Weather* and *Alumaguard® Lite* are laminated jacketing systems. These waterproofing/vapor barrier membranes are composed of either a rubberized bitumen compound; heat applied to a multi-ply embossed UV-resistant aluminum foil/polymer laminate, or polyester/foil multiple layer laminate with acrylic adhesive, or a combination of both. The specific description of these membranes is given below. All are available with the *Alumaguard® Cool Wrap* surface finish.

Alumaguard® is a composite membrane consisting of a multi-ply embossed UV-resistant aluminum foil/polymer laminate to which is applied a layer of rubberized asphalt specially formulated for use on insulated duct and piping applications.

Alumaguard® All Weather is a hybrid product combining the multi-ply embossed UV-resistant aluminum foil/polymer laminate and rubberized asphalt used in the *Alumaguard®* product with a special metalized film coated with the same aggressive low-temperature acrylic adhesive used in *Alumaguard® Lite*.

Alumaguard® Lite is a multi-ply aluminum foil/polymer composite film coated with an aggressive, low temperature acrylic pressure sensitive adhesive. Product is available in smooth and stucco-embossed aluminum or white *Alumaguard® Cool Wrap* and can be installed as a complete system or in combination with *Alumaguard®* as the material used on the bottom of the duct to eliminate the need for pinning.

Physical properties for the *Alumaguard®* family of products are shown in the tables below. See the specific product data sheets for product descriptions, uses, installation requirements, limitations. Product data sheets are available at www.Polyguard.com

Alumaguard® Cool Wrap

Properties and Test Results		
	Solar Reflectance	Thermal Emittance
Cool Roof Rating Council (CRRC) Initial	0.86	0.82
Cool Roof Rating Council (CRRC) 3 Year	0.77	0.86
Energy Star 3 Year	0.84	0.78
California Title 24	Exceeds 0.75	Exceeds 0.75

Alumaguard®

Technical Properties and Testing		
Membrane Property	Test Method	Results
Product Thickness	Micrometer	56 mils 59 mils (Cool Wrap)
Product Weight	Scale	0.3 lbs/sf
Water Vapor Transmission (grains/hr-ft ²)	ASTM E96-00	0.00
Permeance (US Perms)	ASTM E96-00	0.00
Peel Adhesion (to primed steel)	ASTM D1000	> 12 lbs/in
Elongation at Break	ASTM D882	182%
Low Temperature Pliability	ASTM D146	No Cracks@-15°F
Tensile Strength (Film only) (MD)	ASTM D882	43 lbs/in
(XD)		51 lbs/in
Puncture Resistance (Film Only)	ASTM D774	150 PSI
Mold Resistance	ASTM C1338	Pass
Upper Temperature Limit	LAB	160°F
Emissivity	ASTM C1371	.030

Alumaguard® All-Weather

Technical Properties and Testing		
Membrane Property	Test Method	Results
Product Thickness (w/o liner)	Micrometer	35.5 mils 38.5 (Cool Wrap)
Product Weight	Scale	0.2 lbs/sf
Water Vapor Transmission (grains/hr-ft ²)	ASTM E96-00	.00
Permeance (US Perms)	ASTM E96-00	.00
Peel Adhesion (to primed steel)	ASTM D1000	> 16 lbs/in
Elongation at Break	PSTC 131	164%
Tensile Strength	PSTC 131	50 lb/in
Puncture Resistance (Film Only)	ASTM D774	150 PSI
Mold Resistance	ASTM C1338	Pass
Upper Temperature Limit	LAB	150°F
Emissivity	ASTM C1371	.030

Alumaguard® Lite

Technical Properties and Testing		
Membrane Property	Test Method	Results
Total Product Thickness (w/o liner)	Micrometer	7 mils (Silver Smooth) 9 mils (Silver Embossed) 9 mils (Cool Wrap)
Water Vapor Permeance (perms)	ASTM E96, Procedure B	.00
Peel Adhesion(to primed steel)	ASTM D3330 (Method A)	62.4oz/in
Burst Resistance	ASTM D774	150 psi
Tensile Strength (Film only)	ASTM D882 (Method B)	40 Lbs/in
Puncture Resistance	ASTM D1000	25 Lbs
Fungi Resistance	ASTM C1338	Pass
Lower Temperature Exposure	ASTM C1263	-40°F
High Temperature Exposure	ASTM C1263	+240°F
Dimensional Stability	ASTM D1204	< 0.5%
Flame/Smoke	ASTM E84	Meets 25/50
Emissivity	ASTM C1371	.030