



# PARAGON

INDUSTRIAL METAL COATING LLC

## ASTM C1729

The ASTM C1729 is the new standard for aluminum jacketing insulation. This is like a standard to many industries that are involved in aluminum jacketing and its various types.

This helps engineers to find out the right jacket type for aluminum cables. It also acts as compliance for aluminum jacketing.

As this is a standard for aluminum jacketing it helps contractors, engineers, and distributors to identify products and distinguish them.

### ASTM C1729 PARAMETERS

The composition alloy of the aluminum jacketing has to be ASTM B209 compliant while the mechanical properties should be B 209 compliant.

It should cover straight pipes, elbows and fittings, and even vessels and equipment. The ASTM E84 must have flame or smoke less than 25 per 50 square foot while the pinhole barriers should be less than 5 per 50 square feet.

The thickness may vary depending on the NPS and insulation rigidity. It should have not visual defects as well. Emittance targets should be either painted or film-coated.

### CATEGORIZING ASTM C1729

There are three types in which the classification of the ASTM C1729 aluminum jacketing can be done. These are based on-

1. Type that gives you a definition of the outer walls that is whether it's bare, plain, or film-coated.
2. The grade which means aluminum alloy or temper and,
3. The class which defines the type of moisture barrier on the inner surface



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## ASTM C1729

Paragon Aluminum Coating recommends the following classifications within C1729 based on application:

**1. Standard Roll or Sheet Aluminum Jacketing**

(Bare surface, 3105/3003 alloy, H14 temper, 3 mil polyfilm moisture barrier) :-  
Type I, Grade 1, Class A, 0.016-0.024" thick

**2. Standard Roll or Sheet Aluminum Jacketing for Extra Corrosive Environments**

(Painted surface, 3105/3003 alloy, H14 temper, 3 mil polyfilm moisture barrier) :-  
Type II, Grade 1, Class A, 0.016-0.024" thick

**3. Heavy Duty Sheet or Aluminum Jacketing for High Abuse Areas**

(Bare surface, 3105/3003 alloy, H12 temper, 3 mil polyfilm moisture barrier) :-  
Type I, Grade 2, Class A,  $\geq 0.032$ " thick

**4. Deep Corrugated Aluminum Sheet Jacketing**

(Bare or painted surface, 3105/3003 alloy, H14 or H12 temper, 3 mil polyfilm moisture barrier) :-  
Type I or II, Grade 1 or 2, Class A, 0.016-0.40" thick

**5. Box Rib Aluminum Sheet Jacketing**

(Bare surface, 3004 or Alcad 3004 alloy, no moisture barrier) :-  
Type I, Grade 4 or 5, Class E, 0.032-0.050" thick

### C1729 REQUIREMENTS FOR STRAIGHT PIPE JACKET THICKNESS

Outer Insulation Diameter (in)	Minimum Aluminum Jacket Thickness, inches (mm)	
	Rigid Insulation	Non- Rigid Insulation
$\leq 8$	0.016 (in) (0.41(mm))	0.016 (in) (0.41(mm))
Over 8 thru 11	0.016 (in) (0.41(mm))	0.020 (in) (0.51(mm))
Over 11 thru 24	0.016 (in) (0.41(mm))	0.024 (in) (0.61(mm))
Over 24 thru 36	0.020 (in) (0.51(mm))	0.032 (in) (0.81(mm))
>36	0.024 (in) (0.61(mm))	0.040 (in) (1.01(mm))

Contact us to review your spec or for help drafting the best language to specify metal jacketing in your specifications

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