

## Aluminum Jacketing

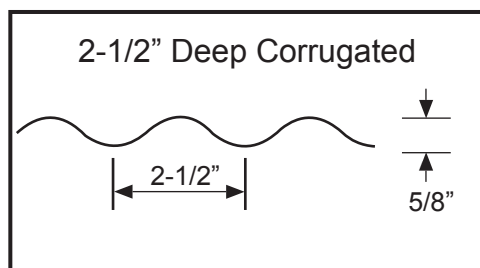
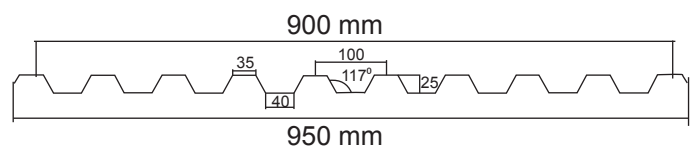
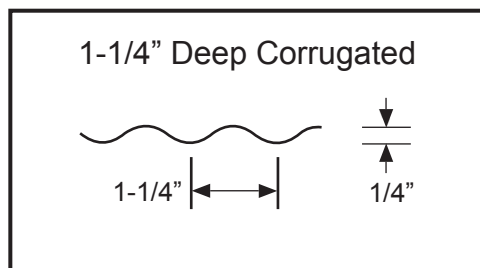
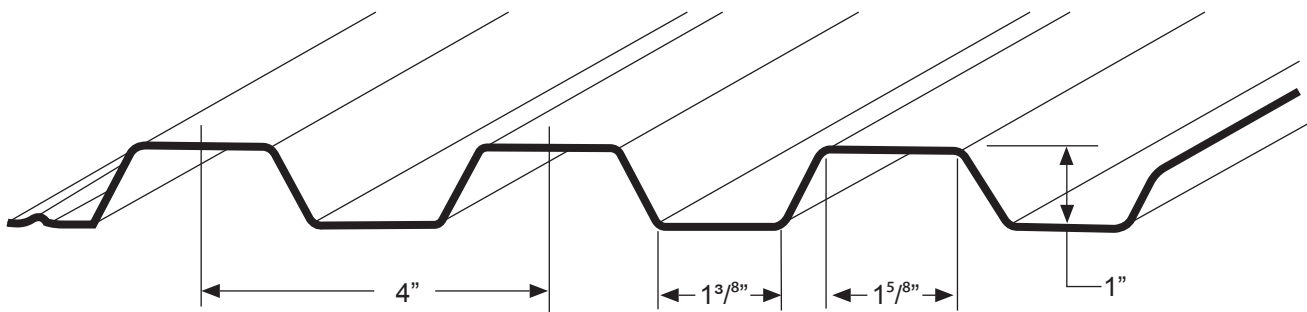
### Description:

Aluminum Jacketing is manufactured from alloys 1100, 3003, 3105 or 5005, conforming to ASTM B-209 designation, within (H-14) half hard temper and heavier gauges quarter-hard (H-12 lock-forming quality).

Commercially pure aluminum is relatively soft as structural material. Its strength can be greatly improved by alloying aluminum with small percentages of one or more other elements such as manganese, silicon, copper, magnesium or zinc. Additional strength can be achieved by cold working, such as cold rolling.

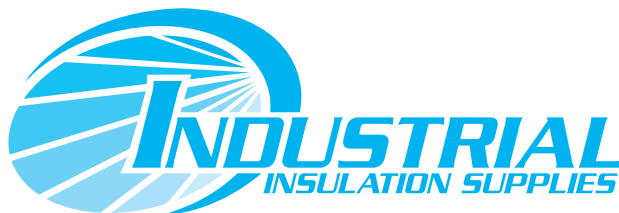
Unless a specific alloy is requested, Sealumet reserves the right to ship whichever alloy is in stock at time of order placement. Other alloys are special order and minimum quantities and extended lead-time required.

**Aluminum jacketing is available in Smooth, Stucco Embossed, Corrugated (cross-crimped) finishes.**



### DISCLAIMER

These data sheets are based on specifications, data and test results at time of publication. No guarantee as to completeness, accuracy or results is either expressed or implied. The suitability for an intended use is the responsibility of the user. As choice of material, method of application and site conditions are beyond our control, we accept no liability for direct or consequential damages.



## Aluminum Jacketing

### Thickness & Suggested Applications

<b>0.016" (0.4mm) &amp; 0.020" (0.5mm)</b>	The standard for industrial use. Recommended over insulated lines up to 36" O.D. including insulation.
<b>0.024" (0.6mm)</b>	A heavier weight jacketing used on larger diameter lines and large equipment up to 8 feet in diameter.
<b>0.032" (0.8mm)</b>	Used in special applications where extra thickness and protection is required, such as fabricated tank head covers and other special fabrications.
<b>0.040" (1.0mm) &amp; 0.050" (1.2mm)</b>	Available in rolls, where extra heavy gauges are required because of severe mechanical abuse or special fabricating requirements, such as flat ducts or precipitators. Also recommended for areas subject to high wind conditions.
<b>Width</b>	914 mm, 1000 mm & 1219 mm
<b>Thickness Tolerance</b>	±0.04mm to ±0.06mm depending on thickness
<b>Length</b>	30 Meters, 60 Meters, 90 Meters, Coils & Flat Sheets

### Moisture Barrier

Prevents galvanic corrosion caused by contact of dissimilar metals in the presence of moisture, and also chemical corrosion caused by contact of dissimilar metals in the presence of moisture, and by certain insulation materials when the sheets are installed over damp insulation materials.

### Moisture Barrier Types:

**Kraft Paper:** Aluminum jacketing is supplied with a moisture barrier, consists of 40-pound Kraft paper coated with one-mil thick, low density polyethylene film, heat and pressure bonded to the interior surface.

**TM-Dupont:** For increased galvanic and corrosion protection, 3 mil polyethylene moisture barrier is available.

**Exterior Protection** - Metal jacketing can be externally protected against salty moisture and chemical attacks

### Exterior Protection Types:

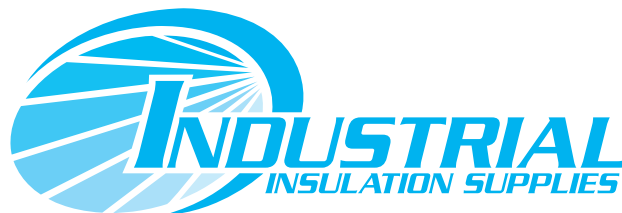
- Acrylic Coating/Film
- Polyester Coating/Film
- PVF Coating/Film : PolyVinyl Florid Coating/Film
- Tedlar Coating/Film : Dupont Product
- PVDF Coating/Film : PolyVinylidene Fluoride Coating/Film
- PU Coating/Film : Polyurethane Coating/Film

### Recommended Uses:

Aluminum Jacketing is recommended for HVAC, Insulated Piping, Tanks & vessels less than 8 feet in diameter. Deep corrugated sheets are recommended for diameters greater than 8 feet.

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## Aluminum Jacketing

### Alloy's Chemical Composition & Mechanical Properties

#### Chemical Composition

Alloy	Si	Fe	Cu	Mn	Zn	Mg	Ti	Cr	Other Elements		AL
									Each	Total	
1100	Si + Fe = 1.00		0.05-0.20	0.05	0.10	-	-	-	0.05	0.15	Remainder
3003	0.60	0.70	0.05-0.20	1.0-1.50	0.10	-	-	-	0.05	0.15	Remainder
3105	0.60	0.70	0.30	0.30-0.80	0.40	0.20-0.80	0.10	0.20	0.05	0.15	Remainder
5005	0.30	0.70	0.20	0.20	0.25	0.50-1.10	-	0.10	0.05	0.15	Remainder

#### Mechanical Properties

##### Alloy 1100

Alloy	Temper	Gauge Range mm		Ultimate Tensile Strength N/mm <sup>2</sup>			Yield Strength N/mm <sup>2</sup>		Ultimate Tensile Strength N/mm <sup>2</sup>	Elongation in 50 mm(%)
		Over	Up To	Min.	Typical	Max.	Min.	Typical	Typical	Min.
1100	H14	0.29	0.32	110	125	145	95	115	75	1
		0.32	0.63	110	125	145	95	115	75	2
		0.63	1.20	110	125	145	95	115	75	3
		1.20	3.20	110	125	145	95	115	75	5

#### Mechanical Properties

##### Alloy 3003

Alloy	Temper	Gauge Range mm		Ultimate Tensile Strength N/mm <sup>2</sup>			Yield Strength N/mm <sup>2</sup>		Ultimate Tensile Strength N/mm <sup>2</sup>	Elongation in 50 mm(%)
		Over	Up To	Min.	Typical	Max.	Min.	Typical	Typical	Min.
3003	H14	0.29	0.32	140	150	180	115	145	95	1
		0.32	0.63	140	150	180	115	145	95	2
		0.63	1.20	140	150	180	115	145	95	3
		1.20	3.20	140	150	180	115	145	95	5

#### Mechanical Properties

##### Alloy 3105

Alloy	Temper	Gauge Range mm		Ultimate Tensile Strength N/mm <sup>2</sup>			Yield Strength N/mm <sup>2</sup>		Ultimate Tensile Strength N/mm <sup>2</sup>	Elongation in 50 mm(%)
		Over	Up To	Min.	Typical	Max.	Min.	Typical	Typical	Min.
3105	H14	0.32	0.63	150	170	200	125	150	105	1
		0.63	1.20	150	170	200	125	150	105	2
		1.20	2.00	150	170	200	125	150	105	2

#### Mechanical Properties

##### Alloy 5005

Alloy	Temper	Gauge Range mm		Ultimate Tensile Strength N/mm <sup>2</sup>			Yield Strength N/mm <sup>2</sup>		Ultimate Tensile Strength N/mm <sup>2</sup>	Elongation in 50 mm(%)
		Over	Up To	Min.	Typical	Max.	Min.	Typical	Typical	Min.
5005	H14	0.30	0.32	145	160	185	115	150	95	1
		0.32	0.63	145	160	185	115	150	95	1
		0.63	1.20	145	160	185	115	150	95	2
		1.20	3.20	145	160	185	115	150	95	3

**Inspection & Test Results: MEETS ASTM SPECIFICATION B-209**