

STAINLESS STEEL JACKETING



Stainless Steel Jacketing

Stainless Steel Jacketing (cladding) from Sealumet is used in hostile areas of severe corrosion or in fire hazardous areas where Aluminum Jacketing is not deemed suitable. It protects the insulation and underlying pipe/vessel from physical damage, UV exposure, corrosive atmospheres, and water.

Alloys available

Stainless Steel Jacketing is widely used in fabricating metal insulation jacketing for projects with corrosive environments and fire hazardous areas. Depending on application and severity of the areas, SS 304 or SS 316L is used. The suffix "L" denotes the lower carbon content in Stainless Steel. SS316L is a lower carbon, austenitic alloy containing chromium and nickel. The addition of molybdenum provides an increased level of corrosion resistance than 304/L.

Alloys	Finish	Applicable Standards
Type 304, 316L, 304L	2B	ASTM A240 and ASTM C1767

Unless otherwise stocks are available, the lead time for SS products range usually is around 8 weeks.

ASTM A240 (Replaces ASTM A167)- Reference Standard for Chemical and Mechanical Properties of Stainless-Steel Alloys

ASTM C1767 - Reference standard for Stainless-Steel Jacketing in Thermal Insulation.

Moisture barrier (For Internal Protection)

Although stainless steel is much more resistant to corrosion than ordinary carbon or alloy steels, it can corrode in certain circumstances. It is generally prone to crevice or pitting corrosion which can be prevented by using a moisture barrier.

- **Polysurlyn**Moisture barrier (PSMB):** Polysurlyn is a Moisture Barrier which is an engineered 3-layer coextruded film of polyethylene and methacrylic acid co-polymers with a total film thickness of 3 mils (76 µm). PSMB is heat laminated in the factory to the interior surface of SS Jacketing. SS Jacketing from Sealumet with Polysurlyn Moisture barrier is one of the premium grade metal jacketing, best suited for prevention of Crevice and Pitting Corrosion.
- **Poly-Kraft Moisture barrier (PKMB):** Moisture barrier consisting of 40-pound Virgin Kraft paper coated with one-mil thick, low density polyethylene film, heat laminated to the interior surface. Polykraft is however not used in certain cases because of its hygroscopic nature leading to corrosion. It is also not recommended as a moisture barrier in Fire hazardous areas.



External Protection - Coated Jacketing

Under hostile areas with extreme corrosion***, Sealumet's Coated Stainless Steel Jacketing can be provided with a factory applied and baked on finish of highly durable hard film with various paint systems like

- PVDF (Polyvinylidene difluoride)
- Polyester
- Acrylic
- Epoxy

These painted surfaces comes with a coating thickness of 15-25 microns (0.6 -1.0 mil). The above finishes provides improved aesthetics, color-coding, increased emittance, and improved corrosion protection to the jacketing used on pipe, tanks, and equipment. Various colours for external coating are available on request.

- Premium Finish - DuPont™ **Tedlar®** (PVF Film) and Arkema™ **Kynar®** (PVDF Film)

Apart from the above coatings, Sealumet also offers Tedlar** (PVF Film - 1.5 Mil) and Kynar ** (PVDF Film) over Stainless Steel Jacketing. Tedlar and Kynar coated Metal Jacketing is recommended for use in insulation system applications where additional resistance to extreme corrosion from the external environment is required. In certain cases, it is also used where a minimum emittance level is desired for Metal Jacketing applications. The standard color for Tedlar** coated jacketing is Gray. Kynar Film is available in different colors depending standard lead times. For Tedlar coated Stainless Steel Jacketing, the standard width shall be 914 mm.



Product Range – Stainless Steel Jacketing

Finish/Profiles	Thickness (mm)	Nominal Width (mm)	Forms Available
Smooth	0.4 through 1.3	1000,1220	Coils, Rolls, Sheets
Stucco Embossed	0.4 through 0.8	1000,1220	Coils, Rolls, Sheets
X Crimped/Mini Orb/3/16", Reeded	0.4 through 0.6	1000,1220	Coils, Rolls.
Deep Corrugated (1-¼" x ¼") and (2-½" x 5/8")	0.4 through 0.8	840, 860	8/10/12 Feet Sheets Other lengths available on request
Box Rib Profile (4" x 1")	0.4 through 0.8	730, 960	8/10/12 Feet Sheets Other lengths available on request
a) X Crimped and Stucco embossed finish is not recommended for horizontal pipes due to water accumulation b) Deep Corrugated sheets are recommended for large vessels and equipment over 8 feet diameter c) Box Rib Sheets are recommended for areas which require extra structural rigidity.			

** Surlyn and Tedlar are Trademarks of Dupont Inc. Kynar is a trademark of Arkema and above information is given for informational purposes only. Sealumet or any of its affiliate companies does not exercise any right over these trademarks.

***Extreme Corrosive environments (C3 and above) require an external coating with extra thickness. Please contact us for our recommended jacketing specification.

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