# **Stainless Steel Roll Jacketing**

### **DESCRIPTION**

ITW's Stainless Steel Roll Jacketing is manufactured from T-304 and T-316 prime grade Stainless Steels. These alloys comply with ASTM A-240, and are supplied with a regular dull finish for reduced glare. The yield strength is 30,000-45,000 PSI and the tensile strength is 75,000-110,000 PSI. These alloys are of a special soft-annealed temper, for ease in fabrication. T-304 is normally used in all except the most corrosive areas, where T-316 is recommended.

The 300 series Stainless Steels have a melt point of approximately 2500°F, providing optimum fire protection. Stainless Steel has a higher emittance value than Aluminum, and has physical properties superior to all other metal used as insulation protective jacketing. T-304 contains 18% chromium and 8% nickel. T-316 contains 16.5% chromium, 10% nickel and 2.2% molybdenum.

Stainless Steel is available in smooth, stucco embossed, or 3/16" corrugated roll jacketing, and deep corrugated sheets. Jacketing is recommended for insulated piping, tanks, and vessels less than 8 feet in diameter. Deep corrugated sheets are recommended for diameters greater than 8 feet. It is recommended that the roll jacketing be 3/16" corrugated for the following reasons: it is stronger than smooth, it reduces glare from external light sources, it eliminates "coil break" when applied over small size piping and does not show dents readily. In extremely corrosive environments, smooth jacketing is recommended to facilitate run-off.

## **RECOMMENDED USES**

#### **Chemical Plants and Refineries:**

Urea units, fertilizer plants, caustic facilities, petrochemical plants and aluminum refineries.

#### **Steel Mills:**

Coke ovens, oxygen steel making furnaces, byproduct plants, aromatic plants and steam distribution facilities.

## **Paper Mills:**

Digester areas, white and black liquor tanks, bleach tanks, chemical pulping and waste treatment tanks.

#### **Miscellaneous:**

Areas of high incidence of abuse on bridges, walkways and service roads, areas of high fire incidence, food processing facilties, packing plants and freeze facilities.

#### POLYSURLYN MOISTURE RETARDER

Polysurlyn consists of a 3 mil thickness of a coextrusion of polyethylene and DuPont's Surlyn<sup>®</sup> which is heat laminated to the metal jacketing. Due to its superior performance characteristics, it replaces the old standard 1 mil and 3 mil polykraft moisture retarders. For cold rooftop and hot work cyclical applications, refer to Technical Information for recommendations.

## SUGGESTED SPECIFICATION

All insulation shall be weatherproofed with ITW's Stainless Steel jacketing. The jacketing is to be manufactured from T-304 (*T-316 option*) Stainless Steel with 3/16" corrugations (*or smooth option*) in .010 and .016" thickness (.020 and .024 available). All jacketing shall have an integrally bonded moisture retarder over the surface in contact with the insulation.