

# Tundra Seal

## EPDM Rubber Pipe Insulation

### Closed Cell Elastomeric Thermal Insulation for HVAC & Refrigeration



#### General

Tundra Seal EPDM Rubber Pipe Insulation is a flexible, closed-cell and light weight EPDM based elastomeric material designed for insulating liquid cooling and heating lines. The closed-cell structure makes it an efficient insulation. Tundra Seal is manufactured to consistently provide actual values on these key performance criteria for mechanical system insulation:

Thermal Conductivity: 0.25  
 Water Vapour Transmission: 0.1  
 Fire Rating: Will not contribute significantly to fire (simulated end-use testing).

Tundra Seal comes in 3/8" and 1/2" thicknesses, has a flame spread rating of 25 or less and smoke developed rating of 50 or less as tested by ASTM E 84 "Surface Burning Characteristics of Building Materials".

**Note:** Numerical flammability ratings alone may not define the performance under actual fire conditions. They are

provided only for use in the selection of products to meet limits specified.

#### Key Features

- UV Resistant
- Low thermal conductivity
- Easy to install
- 25/50 rated
- Versatile for heating, AC refrigeration and plumbing

#### Uses

Tundra Seal is used to retard heat gain and control condensation drip from cold-water plumbing, chilled water and refrigeration lines. It also efficiently reduces heat flow for hot water plumbing, liquid heating and dual temperature piping. Tundra Seal's recommended temperature usage range is -70°F to +257°F.

#### Resistance to Moisture Vapour Flow

The closed-cell structure of Tundra Seal effectively retards the flow of

moisture vapour, and is considered a low transmittance vapour retarder. It requires no supplemental vapour retarder protection.

#### Application

Tundra Seal utilizes a unique 2-step sealing system to insure a permanent seal. Step 1 is an acrylic adhesive seam seal. Step 2 is an EPDM flap that utilizes a cellular fusion adhesive. This adhesive chemistry bonds the EPDM to the tube ensuring a seal for the life of the system.

The closed-cell structure of Tundra Seal retards heat gain on low temperature applications and prevents heat loss on hot water applications. It resists moisture and vapour without the use of an additional barrier. It has a low and stable thermal conductivity. The raw material used for Tundra Seal has an excellent ultraviolet and weather resistance property.

#### Specifications

Physical Properties	TUNDRA	Test Method
Cell Structure	Closed Cell	—
Density Lbs/ft <sup>3</sup>	3 to 6 Lbs/ft <sup>3</sup>	ASTM D 1687
Thermal Conductivity Mean temp. BTU.IN/FT. <sup>2</sup> HR. <sup>2</sup> F K-Value	-40°F (-20°C) 0.22 32°F (0°C) 0.23 75°F (24°C) 0.25 90°F (32°C) 0.26	104°F (40°C) ASTM C177 0.27JIS A 1412
Service Temp	-70°F to 257°F -57°C to +125°C	AEROCCEL becomes hard at -57°C but can be used even at -200°C
UV Weather Resistance	Excellent	ASTM G-23
Ozone Resistance	No Cracking	ASTM D 1171
Water Vapour Permeability	0.10 perm-in (0.15 x 10 <sup>-12</sup> )	ASTM C355
Water Absorption (weight%)	0.2%	ASTM C 209
Flammability	Class V 0	UL-94
Smoke Density	25/50	ASTM E84
	Self Extinguishing	ASTM D635
Corrosion of copper, stainless	Non corrosive	DIN1988
Nitrosamine Contents	Not detected	U.S. FDA
Flexibility	Excellent	—



## Features & Benefits

<b>UV Resistant</b>	Tundra EPDM rubber pipe insulation won't break down when exposed to sunlight. No protective coating required in outdoor applications.
<b>Moisture Resistant</b>	Resists the decomposition moisture causes in other types of closed-cell elastomeric insulation. Tundra has the lowest moisture resistance in the industry (.03 perm rating).
<b>Low Thermal Conductivity</b>	With a .245 k-factor, Tundra offers the best insulation value for closed-cell elastomeric insulation.
<b>Low Temperature Flexibility</b>	Tundra EPDM rubber pipe insulation does not lose its flexibility in cold temperatures.
<b>Extreme Temperature Resistance</b>	Resists the aging effect caused by exposure to temperature extremes. Tundra has an upper temperature limit of 257°F, more than 30° higher than other closed-cell elastomeric insulation products. Tundra also works on dual-temperature systems.
<b>ASTM E-84 Tested</b>	Tundra has a 25/50 flame/smoke rating in thickness up to and including 2".

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