The Speedline® Smoke Safe™ PVC Insulated Fitting Covering System consists of preformed gloss white outdoor weatherable and gloss colored insulated covers for piping fittings. Their unique shapes fit screwed, Victaulic®, welded and flanged elbows, tees, valves, couplings, laterals, reducers and endcaps.

The Speedline® Smoke Safe™ PVC Jacketing System consists of gloss white outdoor weatherable and colored PVC sheet in either bulk rolls or precurled cut-to-fit pipe sizes. The White Jacketing is available in .010″, .015″, .020″, and .030″ thicknesses.

The Jacketing and Fitting Covering Systems include solvent weld adhesives, stainless steel tack fasteners, silicone caulking and adhesive tapes. A die-cut multi-temperature fiberglass insulation insert is available and sized for a full insulation over the exposed pipe fitting and under the overlay of the PVC Fitting Cover.

# **Specification Compliance**

ASTM D 1784, Cell Class 16354, Federal Specification HH-I-558, Form B, Type 1 Class B (Insert Insulation) USDA and FDA for use in food processing, beverage, and pharmaceutical facilities Military Spec LP-1035A, Type II Grade GU Military Spec LP-535E, Type II Grade GU New York City MEA 402-07-M, Agriculture Canada, Canada: CGSB 51.53-95

# **Applications**

Speedline® Smoke Safe™ PVC Insulated Fitting Covers and Jacketing are designed for indoor and outdoor\* applications in commercial, institutional and industrial facilities.

- Speedline® Smoke Safe™ PVC Fitting Covers are designed to cover pipe fittings and other mechanical equipment with an outside diameter of 1-5/8" up to 24" in accordance with ASTM C-585. For outdoor use and in high abuse areas, .030 is recommended. For straight runs of piping, expansion joints should always be used to prevent product failure.
- Speedline® Smoke Safe™ PVC jacketing is suitable for covering all flat and round surfaces such as ductwork, tanks and other mechanical equipment. On vessels larger than 24" OD a minimum of .040 Jacketing should be used. For OD's larger than 48", Speedline flat jacketing is not recommended. Due to the expansion and contraction of tanks and vessels, expansion joints should always be used to prevent product failure.
- The Speedline® Smoke Safe™ PVC Jacketing System has an application temperature range of -35°F to 500°F (-37°C to 260°C). The PVC surface should remain below 150°F (66°C) through the installation of sufficient insulation on higher temperature applications.



- Easy Installation the unique shapes make an easy seal over an entire mechanical system
- Clean, neat and attractive appearance due to the high gloss PVC surface
- Low maintenance
- **Corrosion resistance**
- Outdoor weatherability\* (UV stable)
- The 25/50 fire class of all Speedline® Smoke Safe™ products provides greater universal building code acceptance
- Provides a natural barrier to moisture, bacteria and mold

\* Colored fitting covers and jacketing are NOT recommended for outdoor use.



# **Physical Properties**

Property	Test Method	Value
Speedline® Smoke Safe™ PVC		
Flame Spread	ASTM E84	25 or less
Smoke Developed	ASTM E84	50 or less
Specific Gravity	ASTM 792	1.46
Tensile Strength @ yield lb./in. <sup>2</sup>	ASTM D638	7,000
Tensile Modulus PSI	ASTM D638	400,000
Izod Impact- ft.lb./in.	ASTM D256	15.0
Permeance @ .030"	ASTM E96	.03
WVTR @ .030"	ASTM E96	.014
Permeance @ .020"	ASTM E96	.05
WVTR @ .020"	ASTM E96	.021
Electrical Conductance	ASTM D257	None
Fiberglass Insulation		
Flame Spread	ASTM E84	25 or less
Smoke Developed	ASTM E84	50 or less
Thermal Conductivity (75°F/24°C)	ASTM C177	0.26

# **Specification Data**

# **Hot Systems**

All piping fittings shall be insulated by filling the total void over all fittings, between straight runs of pipe insulation, with Speedline® die-cut fiberglass insulation, forming a uniform insulation thickness equal to or exceeding the adjacent pipe insulation. Finish all insulated pipe fittings by applying Speedline® Smoke Safe™ PVC Fitting Covers overlapping the adjacent pipe insulation outer covering. Secure the Speedline® Fitting Covers with Speedline® Stainless Steel Tack Fasteners, Speedline® PVC Tape or by welding PVC overlaps with Speedline® Solvent Weld Adhesive. Caution should be exercised to be sure that the insulation surface temperature is maintained below 150°F (66°C) through the application of sufficient insulation under all PVC Covering.

## **Cold Systems**

All piping fittings shall be insulated by filling the total void over all pipe fittings between straight runs of pipe insulation with Speedline® die-cut fiberglass insulation, forming a uniform insulation thickness equal to, or exceeding, the adjacent pipe insulation. Finish all insulated pipe fittings by applying Speedline® Smoke Safe™ PVC Fitting Covers overlapping the adjacent pipe insulation outer covering. The overlap of the throat of the PVC Fitting Cover and the ends of the Fitting Cover overlapping the adjacent pipe insulation vapor barrier jacketing shall be vapor sealed with compatible vapor barrier mastic. The ends of the PVC Fitting Cover overlapping the adjacent pipe insulation shall be further sealed by an outer wrapping of Speedline® PVC Tape extending over the adjacent pipe insulation vapor barrier jacketing and overlapping its own circumferential juncture by at least two inches in the downward direction on the downward side.

# **Chemical Resistance**

### **Inorganic Acids**

Sulfuric, nitric, hydrochloric, hydrofluoric Excellent (diluted or concentrated):

### **Organic Acids**

Formic, acetic and propionic Poor

#### **Alkalies**

Sodium and potassium hydroxides Excellent
Ammonium hydroxide Excellent
Caustic Soda Excellent
Soda Ash Excellent

## **Miscellaneous Corrosive Chemicals**

Phenol, resorcinol and creosol Poor lodine, crystals Fair lodine, tincture Excellent Chlorine and bromine water Excellent Potassium dichromate Excellent Silver nitrate Excellent Tannic acid Excellent

### **Solvent and Dilutents**

Alcohol and polyalcohols, including ethyl Excellent methanol, butanol and isopropyl alcohol

#### **Ketones**

Lower boiling ketones Dissolves
Higher boiling ketones Swells

## **Ethers**

Ethyl Softens
Dichlorethyl ether Swells
Diethyl cellosolve Swells
Dioxane Dissolves
Propylene oxide Dissolves

### Hydrocarbons

Aromatics as gasoline, kerosene and Excellent petroleum oils

#### Oils, Fats and Waxes

Animal, mineral and vegetable Excellent

