

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
<b>Speedline® Smoke Safe™ PVC</b>		
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
<b>Fiberglass Insulation</b>		
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 (diluted or concentrated): Excellent

### 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  
 Iodine, crystals: Fair  
 Iodine, tincture: Excellent  
 Chlorine and bromine water: Excellent  
 Potassium dichromate: Excellent  
 Silver nitrate: Excellent  
 Tannic acid: Excellent

### Solvent and Dilutents

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

### 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 petroleum oils: Excellent

### Oils, Fats and Waxes

Animal, mineral and vegetable: Excellent