

### Contribution to LEED Requirement

LEED Credit Category Materials and Resources	Contribution	Points
<b>MR Credit 4.1</b> Recycled content: 10%	Speedline Fittings and Jacketing are made with 40% pre-consumer waste.	1 Point
<b>MR Credit 4.2</b> Recycled content: 20%		1 Point in addition to MR Credit 4.1
<b>MR Credit 5.1</b> Regional Materials: 10% Extracted, processed and manufactured regionally.	Speedline PVC Fittings and Jacketing are manufactured in Cleveland, OH and Greensboro, NC, which may be within 500 miles of the project.	1 Point
<b>MR Credit 5.2</b> Regional materials: 20% Extracted, processed and manufactured regionally.		1 Point in addition to MR Credit 5.1

### CODE COMPLIANCE

Speedline® Smoke Safe™ PVC Fitting Covers and Jacketing meets:

- ASTM 1784
- Federal Specification HH-I-558, Form B, Type 1 Class B
- Requirements of USDA and FDA for use in facilities of the food processing, beverage and pharmaceutical industries

The products are also in compliance with the old Military Specs LP-1035A and LP-535E.

### 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.

## 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	0.049
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