

Resilient, flexible and installation ready, our preformed formaldehyde free Fiber Glass Inserts save you time and labor. The product is designed to withstand extreme temperatures, offers low combustibility and is corrosion and fungi resistant. Its proprietary binder chemistry exceeds the demands of PVC operating systems, while complying with ASTM, fire safety, energy-saving, and toxicity standards.



## SPECIFICATION COMPLIANCE

<b>ASTM</b>	C547 (Mineral fiber pipe specification)
	C665 (Corrosion on plain steel - test method)
	C1338 (Fungi resistance - test method)
	C1617 (Corrosion on plain steel - test method)
	C795 (for use on austenitic stainless steel)
<b>ASHRAE</b>	90.1 (Energy requirements for pipe insulation for commercial buildings.)
<b>CANADA</b>	CAN/ULC S102 (Tunnel test for flame and smoke - test method (Canadian version))
<b>Fire Safety</b>	Meets most requirements of federal, state, and local codes. Accepted for commercial, institutional, industrial, and residential projects in all parts of the U.S. The fiber glass inserts have ASTM E84 25/50 rating.

## FEATURES

- Soft fibers - easy to install and less irritating than comparable products
- Emission-friendly - odorless & compliant with low levels of volatile organic compounds
- Thick & resilient - high tensile strength and thickness control
- Preformed - efficiently and completely fills PVC elbow cavities
- Thermal value smart - meets/exceeds corresponding fiberglass pipe insulation thermal value
- Density - 1 PCF, up to 2" thick

## USES & RECOMMENDATIONS

- Insulate PVC operating systems from sub-zero to 1000°F temperatures
- Household, commercial, institutional and laboratory settings
- Recommended installation: one Proto insert for each inch of corresponding pipe insulation

### ASHRAE 90.1 2013 REQUIREMENTS

#### Nominal Pipe Size

Fluid Temp Range		<1"	1" to 1.5"	1.5" to <4"	4" to <8"	≥8"	Thermal Conductivity
Cold	<40°F	.5"	1"	1"	1"	1.5"	.20 - .26
Cold	40°F - 60°F	.5"	.5"	1"	1"	1"	.21 - .27
	105°F - 140°F	1"	1"	1.5"	1.5"	1.5"	.22 - .28
	141°F - 200°F	1.5"	1.5"	2"	2"	2"	.25 - .29
	201°F - 250°F	2.5"	2.5"	3"	3"	3"	.27 - .30
	251°F - 350°F	3"	4"	4.5"	4.5"	4.5"	.29 - .32
	>350°F	4.5"	5"	5"	5"	5"	.32 - .34

### PHYSICAL PROPERTY DATA

Property	Test Method	Value
Operating Temperature Range	ASTM C411	Up to 1000°F (538°C)
Corrosion Resistance	ASTM C665 & C1617	Meets Requirements
Fungi Resistance	ASTM C1338	Meets Requirements
Odor	ASTM C1304	No objectionable odor
Moisture Sorption	ASTM C1104	<3% by weight
Surface Burning Characteristics	ASTM E84, CAN/ULC-S102	≤25/50 rating
Limited Combustibility		<3500 BTU/LB

### COMPRESSED THERMAL CONDUCTIVITY

Mean Temp.		K Value	
°F	°C	BTU•in/(hr • ft <sup>2</sup> • F°)	W/M • °C
75	24	.23	.033
150	66	.27	.039
300	149	.40	.058



The physical and chemical properties of the Fiber Glass Insulation Inserts listed herein represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as technical service and are subject to change without notice. Numerical flame spread and smoke developed ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions. Please contact customer service at 800.875.7768 to assure current information.