ZESTON® 2000 SERIES PVC

INSULATED FITTING COVERS AND JACKETING

DATA SHEET

FEATURES

Johns Manville Zeston® 2000 Series white and color PVC fitting covers are intended for the protection of insulated or bare pipes. The system has long-lasting protection, an attractive finished appearance, and easy installation. It meets most requirements for federal, state and local fire-safety codes and is accepted for commercial, institutional, industrial, and residential projects in all parts of the US.

Zeston 2000 Series white is manufactured from high-impact, glossy, UV-resistant polyvinyl chloride jacketing.



APPLICATIONS

Zeston 2000 Series PVC fitting covers are ideally suited for indoor use on chilled water, hot water, steam and other piping systems in commercial, institutional, and industrial applications. When combined with Zeston PVC jacketing and solvent welding adhesive or Z-tape, 2000 Series Color PVC fitting covers form a completely sealed system that may be used for chilled water applications. The Zeston PVC system of fittings and jacketing provide easy identification for different pipe systems. All Zeston Color fittings and jacketing are not recommended for outdoor application.

APPLICATION RECOMMENDATIONS

- Wrap the Hi-Lo Temp fiber glass insert completely around the pipe fitting without overly compressing it or leaving any voids
- Ensure that the insulation insert covers all exposed surfaces
- Install the Zeston PVC fitting cover over the pipe fitting and fiber glass insert by securing the throat of the Zeston PVC insert using either serrated tacks, Perma-Weld adhesive or Zeston Z-Tape
- If applied in an outdoor setting or exposed to the sun, precautions should be taken to account for expansion joints. Color products for indoor use only.

QUALIFICATIONS FOR USE

Hot Systems

- Use proper insulation thickness to ensure PVC covers are kept below 150°F (66°C)
- PVC covers should be kept away from contact with and/or exposure to sources of direct or radiated heat
- For fittings where operating temperatures exceed 250°F (121°C) or where pipe insulation thickness is greater than 1½" (38mm), two or more layers of Hi-Lo Temp insulation inserts are required beneath the fitting cover (refer to MECH-261 Zeston Hi-Lo Temp Inserts)

Cold Systems

- An approved vapor-barrier compatible with PVC must be applied between pipe insulation and fitting cover and on fitting cover throat overlap. Please refer to Insulspec MECH-261 on jm.com
- For fittings where operating temperature is below 45°F (7°C) or where the pipe insulation thickness is greater than 1½ " (38mm), two or more layers of Hi-Lo Temp insulation inserts are required beneath fitting cover (refer to MECH-261 Zeston Hi-Lo Temp Inserts)

Refrigerant Systems and Cold Systems In Severe Ambient Conditioning

- Mitered pipe insulation segments, fabricated or pre-molded insulation shapes may be used in lieu of Hi-Lo temp insulation inserts
- An intermediate vapor-barrier compatible with PVC is required to completely seal the insulation prior to installing the Zeston 2000 PVC fitting cover
- Care should be taken to ensure the vapor barrier mastic is applied between the pipe insulation and the fitting cover and on the fitting cover throat overlap seam

Totally Sealed Systems (USDA Approval)

- 20 or 30 mil (0.5 mm or 0.8mm) Zeston PVC jacketing should be applied to pipe insulation in conjunction with Zeston fitting covers
- Circumferential and longitudinal jacket and fitting cover seams should be sealed with Zeston Perma-Weld solvent welding adhesive
- Circumferential seams should be a minimum of 1" (25mm) overlap and longitudinal seams should be 1½"- 2" (38mm to 51mm) overlap
- Upon completion, all seams should visually be checked for seal and, if necessary, touched up
- Slip joints are periodically required between fixed supports and on continuous long runs of straight piping.
- To implement a slip joint, increase the circumferential overlap to 8" to 10" (203 mm to 254 mm) and apply a flexible white caulking in the overlap area to maintain a sealed system
- Refer to Zeston installation instructions CI-35 at www.jm.com

ZESTON® 2000 SERIES PVC

INSULATED FITTING COVERS AND JACKETING

PHYSICAL PROPERTIES

Property	Value	ASTM Test Method
Specific Gravity	1.48	D792
Tensile Strength at Yield, psi (kPa)	> 4,200 (28,960)	D638
Tensil Modulus, psi (kPA)	> 400,000 (2,757,900)	D638
Flexural Strength, psi (kPA)	> 11,000 (75,840)	D638 0.125" (min 0.125" [3mm] thick specimen)
Flexural Modulus, psi (kPa)	> 430,000 (2,964,750)	D790
Flame Spread	25 or less	ASTM E84
Smoke Developed	50 or less	ASTM E84
Electrical Conductance	Non-Conductor	D257
Impact Resistance (IZOD) ft.lb/in	1.7	D256 – Method A

Note: Chemical resistance data available on request.

SPECIFICATION COMPLIANCE

USDA, Agriculture Canada
ICBO
SBCCI
BOCA
ASTM D1784
L-P-535E,* Composition A, Type II, Grade GU
L-P-1035A,* Composition A, Type II, Grade GU
Canada: CGSB 51-GP-53M
CAN/ULC S 102.2

* Impact strength determined by Gardner-SPI test method rather than Izod, since Gardner is more appropriate for PVC sheeting materials.

COMPRESSED THERMAL CONDUCTIVITY ZESTON HI-LO TEMP INSULATION INSERTS

Mean Temperature		"K"	
°F	°C	BTU•in/(hr•ft2•°F)	W/M•°C
75	24	0.23	0.033
150	66	0.27	0.039
300	149	0.40	0.058

AVAILABLE COLORS

White, Black, Tan, Pea Green, Light Blue, Red, Pink, Grey, Brown, Green, Blue, Purple, Orange, Yellow

Johns Manville
717 17th St.
Denver, CO 80202
(800) 654-3103
JM.com

Technical specifications as shown in this literature are intended to be used as general guidelines only. Please refer to the Safety Data Sheet and product label prior to using this product. The physical and chemical properties of the product listed herein represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Any references to numerical flame spread or smoke developed ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions. Check with the Regional Sales Office nearest you for current information.

All Johns Manville products are sold subject to Johns Manville's standard Terms and Conditions, which includes a Limited Warranty and Limitation of Remedy. For a copy of the Johns Manville standard Terms and Conditions or for information on other Johns Manville thermal insulation and systems, visit www.jm.com/terms-conditions or call (800) 654-3103.

05/26/26 (Replaces 06/19/25)

© 2026 Johns Manville All Rights Reserved

MECHANICAL INSULATION

ZESTON® HI-LO TEMP INSULATION INSERTS

FIBERGLASS INSULATION INSERTS

DATA SHEET

DESCRIPTION

Zeston® Hi-Lo Temp fiberglass insulation inserts are flexible, pre-cut inserts for PVC pipe fittings. They are sized for each specific PVC fitting and are a lower-cost alternative to preformed or fabricated insulated elbows. The inserts are designed to meet the thermal requirements of ASTM C553 and ASHRAE 90.1.

Zeston Hi-Lo Temp Insulation Inserts are manufactured from rotary-process fiberglass bonded with a Formaldehyde-free™ resin. They are cut to size to be used in conjunction with JM's Zeston PVC fittings. Zeston Hi-Lo Temp Insulation Inserts are flexible, odorless, and vibration resistant. They can save time and labor during installation and are designed to meet corresponding pipe insulation thermal value. The Zeston Hi-Lo Temp Insulation Inserts are made with a formaldehyde-free binder; however, all bonded fibrous insulation products made with formaldehyde-free binders will result in some formaldehyde emissions at temperatures that exceed 450°F.

USES

Zeston Hi-Lo Temp Insulation Inserts are used to insulate PVC fittings in operating temps between 0°F-850°F/-18°C-454°C. JM recommends installing one (1) Zeston Hi-Lo Temp Insulation Insert for every 1" of corresponding pipe insulation thickness. The insulation insert may emit minimal smoke and odor during the initial exposure to elevated temperatures. Keep the area well-ventilated during the initial heat-up.

PHYSICAL PROPERTIES

- 2" thick 1.0 PCF density
- Formaldehyde-free™ binder
- Insulation is a white, light-weight, highly resilient, blanket-type thermal insulation manufactured from rotary process fiber glass
- Inserts are tabbed on sizes 2-10 and cut all the way through for large-size fitting inserts, to accommodate easy separation and resist tearing
- Service Temp. Range (ASTM C411) 0°F - 850°F/-18°C - 454°C
- Corrosivity (ASTM 1617) Pass
- Limited Combustibility <3500 BTU/LB
- Microbial Growth (ASTM C1338) Pass
- Moisture Sorption <5% by weight
- pH 7.5 - 12
- Surface Burning Characteristics (ASTM E84) ≤ 25/50 (flame/smoke)
- Uncompressed Insulation thickness/density 2" Thick/1 PCF Density



COMPRESSED THERMAL CONDUCTIVITY

Mean Temperature		K	
°F	°C	BTU • in/(hr • ft² • °F)	W/m•°C
75	24	.23	.033
150	66	.27	.039
300	149	.40	.058

SPECIFICATION COMPLIANCE

ASTM C553
ASHRAE 90.1
ASTM E84 25/50 rating
NRC 1.36, ASTM C795, MIL-DTL-24244*

*Before ordering material to comply with these specifications, a statement of the fact must appear on the purchase oder. Specific lot testing will be conducted and a certification of compliance can be provided.

SUSTAINABLE BUILDING ATTRIBUTES

Recycled Content: 20%

GREENGUARD
PRODUCT CERTIFIED FOR LOW CHEMICAL EMISSIONS
UL.COM/GG
UL 2818
GOLD

Johns Manville

717 17th St.
Denver, CO 80202
(800) 654-3103
JM.com

Technical specifications as shown in this literature are intended to be used as general guidelines only. Please refer to the Safety Data Sheet and product label prior to using this product. The physical and chemical properties of the product listed herein represent typical, average values obtained in accordance with accepted test methods and are subject to normal manufacturing variations. They are supplied as a technical service and are subject to change without notice. Any references to numerical flame spread or smoke developed ratings are not intended to reflect hazards presented by these or any other materials under actual fire conditions. Check with the Regional Sales Office nearest you for current information.

All Johns Manville products are sold subject to Johns Manville's standard Terms and Conditions, which includes a Limited Warranty and Limitation of Remedy. For a copy of the Johns Manville standard Terms and Conditions or for information on other Johns Manville thermal insulation and systems, visit www.jm.com/terms-conditions or call (800) 654-3103.

05/26/26 (Replaces 06/19/25)

© 2026 Johns Manville All Rights Reserved