

**FULL CODE COMPLIANCE** 

# International Energy Conservation Code IECC

**Protection of Piping Insulation** 

Piping insulation exposed to weather shall be protected from damage, including that due to sunlight, moisture, equipment maintenance, wind and shall provide shielding from solar radiation that can cause degradation of the material. Adhesive tape shall not be permitted.

Commercial C403.12.3.1 2021 C403.11.3.1 2018, C403.2.10.1 2015, C403.2.8.1 2012 Residential R403.3.1, 2012, 2015, R403.4.1 2018, 2021

Refrigerant piping Insulation shall be protected in accordance with Section N1103.4.1

International Residential Code - N1103.4.1 / M1411.61

#### **APPROVED MATERIAL TESTING**

**ASTM G153 Weatherization & UV Exposure ASTM D570 Water Absorption ASTM E96 Water Vapor Permeability** ASTM E84/UL 723 Flame & Smoke Rating 25/450 **ASTM G21** Anti-Fungal/Antimicrobial **ASTM D412 Tension Deformation Test** 







"shall include or be protected by a Class I or Class II vapor retarder.

2022 California Building Energy Standard TITLE 24 120.3 (b) 1.2

ASHRAE 90.1-6.4.4.11 (A, B)

**Refrigerant Piping Joints Visual Inspection** Removable and Reusable

"Refrigerant pipe joints erected on the premises shall be exposed for visual inspection prior to being covered or enclosed."

International Mechanical Code 1109.8 **Uniform Mechanical Codes -1107** 





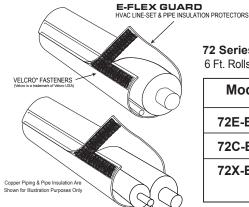
TE SE	Energy Efficient
72	Product

#### SUBMITTAL SHEET

Project
Contractor
Date
Specification Reference
Comments

## **HVAC Piping & Insulation Protector**

72 Series 6 Ft. Rolls



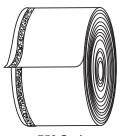
E-FLEX GUARD Color Options Black - B White - W 

Substitute (B) with (W) for White

#### Recommended Sizing Chart

Model #	Suction Line Insulated	Both Lines Insulated Mini Splits - Heat Pumps	Diameter	Width
72E-B (6ft)	(Fits: 1/2" wall thickness with 5/8", 3/4", 7/8" tube)	3/8" Wall Insulation Thickness	1.70" (4cm)	8"(20cm)
72C-B (6ft)	(Fits: 3/4" wall thickness with 5/8", 3/4", 7/8" tube)	1/2" Wall Insulation Thickness	2.38" (6cm)	9.5"(24cm)
72X-B (6ft)	(Fits: 1" wall thickness with 5/8", 3/4", 7/8" tube or 3/4" & 1" wall thickness pipe insulation with 1-1/8" tube)	3/4" Wall Insulation Thickness	3.19" (8cm)	11.5"(29cm)

## Recommended Sizing Chart



750 Series 75 Ft. Mega Rolls

	Recommended Sizing Chart			_	
Model #	Suction Line Insulated	Both Lines Insulated Mini Splits - Heat Pumps	Diameter	Width	
750E-B (75ft)	(Fits: 1/2" wall thickness with 5/8", 3/4", 7/8" tube)	3/8" Wall Insulation Thickness	1.70" (4cm)	8" (20cm)	
750C-B (75ft)	(Fits: 3/4" wall thickness with 5/8", 3/4", 7/8" tube)	1/2" Wall Insulation Thickness	2.38" (6cm)	9.5"(24cm)	
750X-B (75ft)	(Fits: 1" wall thickness with 5/8", 3/4", 7/8" tube or 3/4" & 1" wall thickness pipe insulation with 1-1/8" tube)	3/4" Wall Insulation Thickness	3.19" (8cm)	11.5"(29cm)	
750V-B (75ft)	(Fits 1-1/2" wall thickness with 7/8" tube or 1" wall with 2 1/8" tube, or 3/4" wall with 2 5/8" Tube)	*1" Wall Thickness	4.13"(10.5cm)	14"(35cm)	

\*Additional sizes can be used that are wthin the diameter

### 90 Series 90° PVC Insulation Protectors



90E-B	90° Angle fits E Series	
90C-B	90° Angle fits C Series	
90X-B	90° Angle fits X Series	
90V-B	90° Anale fits V Series	

Airex Part Number Recommended Sizing Chart

U.S. Patents #9,091,377 B2, #9,523,200 B2

#### **SPECIFICATIONS**

AIREX E-FLEX GUARD™ - An insulation protective cover by Airex Manufacturing Inc., shall be provided and installed to be flexible, U/V and weather resistant. The PVC plastic pipe insulation cover shall feature an integrated, outdoor-rated durability, industrial-grade, full-enclosure fastening system that is double secured by molecular bonding, allowing custom, cut-to-length installations. The cut-to-length installations shall comprise of a non-unraveling PVC cover material that does not compromise long-term-effectiveness or require specialized tools and cutting equipment. The engineered fastening system is to allow the cover to be removable and reusable for maintenance without the use of adhesives as an attachment in any way shape or form, including either in the protector's construction, installation, or attachment to pipe insulation, as this will negatively affect insulation permeance performance and promote insulation material degradation which causes added energy usage by equipment. WRAPPING TAPE OR ADHESIVE TAPE SHALL NOT BE PERMIT-TED AS PER ENERGY CODES. Insulation Protector shall be tested and meet the following testing ASTM E 96 (Vapor Transmission of Materials), ASTM G 153 (Carbon Arc Light Exposure – Accelerated Weathering), ASTM D 412 (Tensile Strength: after UV Exposure and Water Immersion) ASTM 570 (Water Absorption of Plastics), ASTM E 84/UL 723 (Surface Burning Characteristics of Building Materials), ASTM G 21 (Fungal Growth). UV/Protector Pipe Insulation Material shall Meet Class II vapor retarder per ASTM E 96 (vapor/moisture permeability test) "1 perm or less". THE USE OF U/V PAINT, MASTICS OR NON-PERMEABLE MATERIALS OR ADHESIVES ARE NOT PERMITTED FOR THIS APPLICATION. AIREX E-FLEX GUARD™ shall shield from damage from Solar radiation, U/V, weather and physical damage. Protection shall include Class II rated vapor retarder permeability performance material, as required per Energy codes.

