





#### 72-B Series

(6 ft. Standard Roll)

# E-FLEX GUARD

# **Protects Piping Insulation**

- Outdoor UV/Weather Grade Resistant Construction
- · Self-Gripping, Dual-Bonded Hook & Loop Fastening System
- Removable/Reusable for Maintenance
- Protector and Class II Vapor Retarder (All-In-One)
- Meets ASTM G153 Weatherization and UV
- Meets ASTM E-96 Water/Vapor Permeability



U.S. Patents #9,091,377 B2 #9.523,200 B2

Copper Piping & Pipe Insulation Are Shown for Illustration Purposes Only



- √ Building Codes
- ✓ Energy Codes
- **√** Residential Codes
- **✓ Mechanical Codes**
- **√** Green Codes



750 Series

75 ft. Mega Rolls



Mini-Split Systems

Central Systems



# **Weather Damage Protection**



















# Residential

#### Commercial

#### Approved Material & Performance Testing

#### **Material Testing Standards**

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

### Codes & Standards Compliance

# Pipe Insulation Protection for Compliance per:

- IECC 2012, 2015, 2018 Protection of Piping Insulation Commercial Section C403.2.8.1, C403.2.10.1; Residential Section R403.3.1, R403.4.1
- IRC 2018 Refrigerant Line Insulation Protection M1411.6.1
- California Building Energy Efficiency Standards (Title 24 Energy Code) 2016, 2019
   Commercial Requirement for Pipe Insulation, Section 120.3(a) 1. (b) 1. & 2.
- California Building Energy Efficiency Standards (Title 24 Energy Code) 2016, 2019 Residential Requirement for Pipe Insulation, Section 150.0(j)3. A. & B.
- ASHRAE Standard 90.1 2000, 2013, 2016, 2019

# **Multi-Family Units**

#### 2012, 2015, 2018 International Energy Conservation Code (IECC)

Residential Section R403.4.1 (2018), (2015), (2012) Commercial Section C403.11.3.1 (2018), (2015), (2012)

#### **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.

\*Based on HVAC Industry and Manufacturer's Independent Study on a Combined ROI & Sustainable Energy Savings Calculation. A contributing product to the U.S. Energy Department's 30% Energy Savings Soliton Initiative.





# **HVAC Piping Insulation Protector**



#### SUBMITTAL SHEET

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		Contractor
		Date
AREX		Specification Reference
<b>EFLEXGUARD</b> <sup>™</sup>		Comments

# E-FLEX GUARD HVAC LINE-SET & PIPE INSULATION PROTECTORS VELCRO\* FASTENERS U.S. Patents #9,091,377 B2 #9,523,200 B2

#### **E-FLEX GUARD MODEL NUMBERS**

Airex Part Number		Recommended Sizing Chart	
72C_R (6 ft) Fits: 3/4" wall thickness pipe insulation with 5/8", 3/4", 7/8		Fits: 1/2" wall thickness pipe insulation with 5/8", 3/4", 7/8" tube.	8" Width
		Fits: 3/4" wall thickness pipe insulation with 5/8", 3/4", 7/8" tube or 1/2" wall thickness pipe insulation with 1-1/8" tube.	9.5" Width
	<b>72X-B</b> (6 ft)	Fits: 1" wall thickness pipe insulation with 3/4", 7/8, 1-1/8" tube or 3/4" wall thickness pipe insulation with 1-1/8" tube.	11.5" Width

	<b>E-FLEX GUARD</b> ™ Color Options	Black - B	White - W
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Substitute White (W) for Black (B)

#### **Product Description and Specification**

Copper Piping & Pipe Insulation Are Shown for Illustration Purposes Only

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 PERMITTED 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 OR NON-PERMEABLE MATERIALS OR ADHESIVES ARE NOT PERMITTED FOR THIS APPLICATION. AIREX E-FLEX GUARD™ combines U/V weather and physical protection with a Class II rated vapor retarder permeability performance material, as required per energy codes.

# **Approved PVC Material Performance Testing** Material Testing Standards • ASTM G153 – Weatherization and UV Exposure · ASTM E96 - Water/Vapor Permeability ASTM G21 – Anti-Fungal/Anti-Microbial ASTM D412 - Tension Deformation Test (UV Exposure & Water Immersion)

ASTM D570 – Water Absorption
 ASTM E84/UL 723 - Flame and Smoke Rating 25/450



Airex Part Nur	nber Recommended Sizing Chart	
<b>750E-B</b> (75 ft)	Fits: 1/2" wall thickness pipe insulation with 5/8", 3/4", 7/8" tube.	8" Width
<b>750C-B</b> (75 ft)	Fits: 3/4" wall thickness pipe insulation with 5/8", 3/4", 7/8" tube or 1/2" wall thickness pipe insulation with 1-1/8" tube.	9.5" Width
<b>750X-B</b> (75 ft)	Fits: 1" wall thickness pipe insulation with 3/4", 7/8, 1-1/8" tube or 3/4" wall thickness pipe insulation with 1-1/8" tube.	11.5" Width
<b>750V-B</b> (75 ft)	Single Pipe  Fits: 3/4", 1" wall thickness pipe insulation with up to 2-1/8" tube, 3/4", 1" wall thickness pipe insulation with 1-3/8" tube, 1" wall thickness pipe insulation with 1-1/8" tube.  Double Pipe  Fits: 1" wall thickness pipe insulation with 7/8" tube or 1" wall thickness pipe insulation with 3/8" tube.	14.0" Width

#### 90 Series

90° PVC Insulation Protectors



3	Airex Part Number	Recommended Sizing Chart
	90E-B	90° Angle fits E Series
	90C-B	90° Angle fits C Series
	90X-B	90° Angle fits X Series

U.S. Patents #9.091.377 B2. #9.523.200 B2













#### 72-W Series

(6 ft. Standard Roll)

# E-FLEX GUARD

# **Protects Piping Insulation**

- Outdoor UV/Weather Grade Resistant Construction
- · Self-Gripping, Dual-Bonded Hook & Loop Fastening System
- · Removable/Reusable for Maintenance

**Meets New Code** 

**Requirements:** ✓ Building Codes

✓ Energy Codes

**√** Green Codes

√ Residential Codes

**Mechanical Codes** 

- Protector and Class II Vapor Retarder (All-In-One)
- Meets ASTM G153 Weatherization and UV
- Meets ASTM E-96 Water/Vapor Permeability



750 Series

Mega Rolls

75 ft.

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

Copper Piping & Pipe Insulation Are Shown for Illustration Purposes Only





Mini-Split Systems

Central Systems



# Weather Damage Protection

# BILL ST Snow















# Residential

Commercial

#### Approved Material & Performance Testing

#### **Material Testing Standards**

- ASTM G153 Weatherization and UV Exposure
- ASTM E96 Water/Vapor Permeability
- ASTM G21 Anti-Fungal/Anti-Microbial
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- California Building Energy Efficiency Standards (Title 24 Energy Code) 2016, 2019 Residential Requirement for Pipe Insulation, Section 150.0(j)3. A. & B.
- ASHRAE Standard 90.1 2000, 2013, 2016, 2019

# **Physical Damage Protection**









# Multi-Family Units

# 2012, 2015, 2018 International Energy Conservation Code (IECC)

Residential Section R403.4.1 (2018), (2015), (2012) Commercial Section C403.11.3.1 (2018), (2015), (2012)

#### 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.

\*Based on HVAC Industry and Manufacturer's Independent Study on a Combined ROI & Sustainable Energy Savings Calculation. A contributing product to the U.S. Energy Department's 30% Energy





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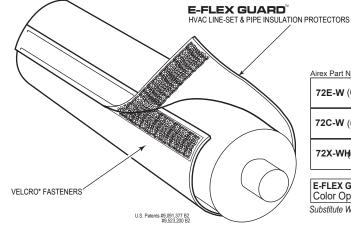
# **HVAC Piping Insulation Protector**



# SURMITTAL SHEET

AIREX EFLEXG	LIADD <sup>TM</sup>
`EFLEXG	UARD

Project	
Contractor	
Date	
Specification Reference	
Comments	



#### **E-FLEX GUARD MODEL NUMBERS**

Airex Part Number		Recommended Sizing Chart	
	<b>72E-W</b> (6 ft)	Fits: 1/2" wall thickness pipe insulation with 5/8", 3/4", 7/8" tube.	8" Width
		Fits: 3/4" wall thickness pipe insulation with 5/8", 3/4", 7/8" tube or 1/2" wall thickness pipe insulation with 1-1/8" tube.	9.5" Width
	72X-WH(6H)	Fits: 1" wall thickness pipe insulation with 3/4", 7/8, 1-1/8" tube or 3/4" wall thickness pipe insulation with 1-1/8" tube	11.5" Width

<b>E-FLEX GUARD</b> ™ Color Options	Black - B	White - W
0 1 (1) 1 14/1.1 (14/1.5 D) 1 (D)		

Substitute White (W) for Black (B)

# **Product Description and Specification**

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# **Approved PVC Material Performance Testing**

Airex Part Number

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   ASTM G153 Weatherization and UV Exposure
- · ASTM E96 Water/Vapor Permeability
- ASTM G21 Anti-Fungal/Anti-Microbial
   ASTM D412 Tension Deformation Test (UV Exposure & Water Immersion)

Recommended Sizing Chart

ASTM D570 – Water Absorption
 ASTM E84/UL 723 - Flame and Smoke Rating 25/450



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<b>750C-W</b> (75 ft)	Fits: 3/4" wall thickness pipe insulation with 5/8", 3/4", 7/8" tube or 1/2" wall thickness pipe insulation with 1-1/8" tube.	9.5" Width
<b>750X-W</b> (75 ft)	Fits: 1" wall thickness pipe insulation with 3/4", 7/8, 1-1/8" tube or 3/4" wall thickness pipe insulation with 1-1/8" tube.	11.5" Width
<b>750V-W</b> (75 ft)	Single Pipe  Fits: 3/4", 1" wall thickness pipe insulation with up to 2-1/8" tube, 3/4", 1" wall thickness pipe insulation with 1-3/8" tube, 1" wall thickness pipe insulation with 1-1/8" tube.  Double Pipe  Fits: 1" wall thickness pipe insulation with 7/8" tube or 1" wall thickness pipe insulation with 3/8" tube.	14.0" Width

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90° PVC Insulation Protectors



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