

Fiber Free

# AP/Armaflex®

## White and Black Tube Insulation

The original, fiber-free, flexible elastomeric pipe insulation for reliable protection against condensation and energy loss.



- Fiber-free, formaldehyde-free, low VOC and non-particulating formulation protects indoor air quality
- Closed-cell structure provides excellent condensation control
- Built-in vapor barrier eliminates need for additional vapor retarder
- Microban® antimicrobial product protection inhibits the growth of mold and mildew in the insulation
- 25/50 rated for use in air plenums up to 2" wall
- Available up to 2" wall

# armacell®



GREENGUARD Certified products are certified to GREENGUARD standards for low chemical emissions into indoor air during product usage. For more information, visit [ul.com/gg](http://ul.com/gg).

Microban antimicrobial product protection is limited to the product itself and is not designed to protect the users of these products from disease causing microorganisms, or as a substitute for normal cleaning and hygiene practices.\*

## Technical Data: AP Armaflex® Tube Insulation

### Description:

Black or white flexible closed-cell elastomeric thermal insulation in a tubular form

### Specifications Compliance:

ASTM C 534, Type I — Grade 1 ASTM D 1056, 2B1 ASTM E 84, NFPA 255, UL723	ASTM G21/C1338 ASTM G22 CAN/ULC S102 <sup>1</sup> MEA 107-89M	MIL-P-15280J, FORM T <sup>2</sup> MIL-C-3133C (MIL STD 670B) Grade SBE 3 <sup>2</sup> NFPA 90A, 90B	UL 181 UL 94 5V-A, V-0, File E55798 City of LA – RR 7642
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### Approvals, Certifications, Compliances:

- Key physical properties are approved by Factory Mutual.
- GREENGUARD® Children & Schools Indoor Air Quality certified.
- Manufactured without CFCs, HFCs, HCFCs, PBDEs, or Formaldehyde.
- Made with EPA registered Microban® antimicrobial product protection.
- All Armacell facilities in North America are ISO 9001:2008 certified.

### Typical Properties

Specifications:	Values:		Test Method:
	Through 1" Wall	1-1/2" & 2" Walls	
<b>Thermal Conductivity:</b> Btu • in./h • ft <sup>2</sup> • °F (W/mK)			
75°F Mean Temperature [24°C]	0.245 (0.0353)	0.28 (0.040)	ASTM C 177 or C 518
90°F Mean Temperature [32°C]	0.254 (0.0366)	0.286 (0.041)	
<b>Water Vapor Permeability:</b> Perm-in. [Kg/(s • m • Pa)]	0.05 (0.725 x 10 <sup>-13</sup> )	0.08 (1.16 x 10 <sup>-13</sup> )	ASTM E 96, Procedure A
<b>Flame Spread and Smoke Developed Index:</b>	25/50 rated	25/50 rated	ASTM E 84 CAN/ULC S102 <sup>1</sup>
<b>Water Absorption, % by Volume:</b>	0.2%	0.2%	ASTM C 209
<b>Mold Growth:</b> <b>Fungi Resistance:</b> <b>Bacterial Resistance:</b>	Passed	Passed	UL181 ASTM G21/C1338 ASTM G22
<b>Upper Use Limit:</b> <sup>3</sup>	220°F (105°C)	220°F (105°C)	ASTM C534
<b>Lower Use Limit:</b> <sup>4</sup>	-297°F (-183°C) <sup>5</sup>	-297°F (-183°C) <sup>5</sup>	ASTM C534
<b>Ozone Resistance:</b>	GOOD	GOOD	Ozone Chamber Test

### Sizes:

Wall Thickness (nominal)	3/8", 1/2", 3/4", 1", 1-1/2", 2" (10, 13, 19, 25, 38, 50mm)
Inside Diameter, Tubular	3/8" ID to 8" ID (10mm ID to 203mm)
Length of Sections, Feet, Tubular	6' (1.8m)

**Outdoor Use** Painting with WB Finish or other protective jacketing is required for exterior applications.

<sup>1</sup> AP Armaflex meets CAN/ULC S102 through 1" wall. AP Armaflex Black tested. AP Armaflex White determined to be comparable through 1" wall.

<sup>2</sup> AP Armaflex meets MIL-P-15280J and MIL-C-3133C (MIL STD 670B) Grade SBE through 1" wall.

<sup>3</sup> AP Armaflex Pipe Insulation can withstand temperatures as high as 250°F for 96 hour time periods when tested according to ASTM C411 - Standard Test Method for Hot-Surface Performance of High-Temperature Thermal Insulation.

<sup>4</sup> At temperatures below -20°F (-29°C), elastomeric insulation starts to become less flexible. However, this characteristic does not affect thermal efficiency and resistance to water vapor permeability of Armaflex insulation.

<sup>5</sup> For applications of -40°F to -297°F (-40°C to -183°C), contact Armacell.

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