AP/Armaflex®

White and Black Tube Insulation

Fiber Free

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 and 10" ID

armacell®

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

FM APPROVED

U.S. GREEN BUILDING COUNCIL MEMBER

PROTECTION THAT LIVES ON MICROBAN

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.

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

Applications:

Insulation for piping associated with HVAC, VRV and VRF systems, chillers, hot and cold water, refrigeration

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 ①	MEA 107-89M MIL-P-15280J, FORM T ② NFPA 90A, 90B	UL 181 UL 94 5V-A, V-0, File E55798 City of LA – RR 7642

Approvals, Certifications, Compliances:

- 3rd party certified by FM Approvals through 1-1/2" wall thickness
- 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	
Thermal Conductivity: Btu • in/h • ft² • °F (W/mK)			
75°F Mean Temperature (24°C) 90°F Mean Temperature (32°C)	0.245 (0.0353) 0.254 (0.0366)	0.28 (0.040) 0.286 (0.041)	ASTM C 177 or C 518
Water Vapor Permeability: Perm-in. [Kg/(s • m • Pa)]	0.05 (0.725 x 10^{-13})	0.08 (1.16 x 10^{-13})	ASTM E 96, Procedure A
Flame Spread and Smoke Developed Index:	25/50 rated	25/50 rated	ASTM E 84 CAN/ULC S102 ①
Water Absorption, % by Volume:	0.2%	0.2%	ASTM C 209
Mold Growth: **Fungi Resistance:** **Bacterial Resistance:**	Passed	Passed	UL181 ASTM G21/C1338 ASTM G22
Upper Use Limit:	220°F (105°C) ③	300°F (149°C) ④	ASTM C534
Lower Use Limit: ⑤	-297°F (-183°C) ⑥	-297°F (-183°C) ⑥	ASTM C534
Ozone Resistance:	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, 50 mm)
Inside Diameter, Tubular	3/8" ID to 10"ID (10 mm ID to 250 mm ID)
Length of Sections, Feet, Tubular	6' (1.8 m) (Some larger sizes may be shipped in two 3' sections)

Outdoor Use	Painting with WB Finish or other protective jacketing is required to prevent damage to the insulation in exterior applications and to comply with the insulation protection sections of the International Energy Conservation Code (IECC) and ASHRAE 90.1.

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

② AP Armaflex meets MIL-P-15280J through 1" wall.

③ 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.

④ 1-1/2" and 2" AP Armaflex tubes are formulated with EPDM rubber giving them a higher upper use temperature than AP Armaflex tubes less than 1-1/2" wall thickness.

⑤ 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.

⑥ For applications of -40°F to -297°F (-40°C to -183°C), contact Armacell.

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