SOLUTIONS FOR ENERGY SAVINGS

AP ArmaFlex®

White Lap Seal

The original, fiber-free, flexible elastomeric pipe insulation with a labor-saving elastic foam lap seal for reliable protection against condensation, mold and energy loss in demanding grocery refrigeration applications.

// Reinforced elastic lap seal won't buckle or lift for greater seam integrity
// Closed-cell structure provides excellent condensation and energy loss control
// Built-in vapor retarder eliminates need for additional vapor retarder

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TECHNICAL DATA – AP ARMAFLEX® WHITE LAPSEAL TUBE INSULATION

Description

Off-white flexible closed-cell elastomeric thermal insulation in tubular form with a reinforced lap seal

Applications

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

Specification Compliance

ASTM C 534, Type I — Tubular Grade 1 ASTM E 84 NFPA 255	UL 723 NFPA 90A, 90B UL 181	ASTM G21/C1338 ASTM D 1056, 2C1 CAN/ULC S102 ①	

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 certified.
- Plenum Rated

Typical Properties

Specifications	Values		Test Method
	1/2" through 1" Walls	**1-1/2" Wall**	
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 or ASTM C1763
Mold Growth: **Fungi Resistance:** **Bacterial Resistance:**	Passed	Passed	UL181 ASTM G21/C1338
Upper Use Limit: ②	220°F (105°C)	300°F (149°C)	ASTM C534
Lower Use Limit: ③	-297°F (-183°C) ④	-297°F (-183°C) ④	ASTM C534

Sizes

Wall Thickness (nominal)	1/2", 1", 1-1/2" (13, 25, 38 mm)
Inside Diameter, Tubular	5/8" ID to 2-5/8"ID (15 mm ID to 67 mm ID)
Length of Sections, Feet, Tubular	6' (1.8 m)

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. AP ArmaFlex Black tested. AP ArmaFlex White determined to be comparable.
② On the heating cycle, AP ArmaFlex LapSeal tube insulation will withstand temperatures as high as 220°F (105°C). 520, 520 Black or 520 BLV Adhesive may be used with pipe insulation applications up to 220°F (105°C).
③ 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.
④ For applications of -40°F to -297°F (-40°C to -183°C), contact 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.

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. Microban International, Ltd. makes neither direct nor implied health claims for the products containing Microban® antimicrobial product protection. Data, photomicrographs and information presented are based on standard laboratory tests and are provided for comparative purposes to substantiate antimicrobial activity for non-public health uses. Microban is a registered trademark of Microban International, Ltd.

AP ARMAFLEX WHITE LAPSEAL TUBE INSULATION - R VALUES

1/2" Walls	Pipe Size	R-Value
IPWST01212	3/8" Copper	3.3
IPWST05812	1/2" Copper	3.4
IPWST07812	3/4" Copper	3.3
IPWST11812	1" Copper	3.3
IPWST13812	1-1/4" Copper	3.2
IPWST15812	1-1/2" Copper	3.2
IPWST21812	2" Copper	3.2
IPWST25812	2-1/2" Copper	3.4

1" WALLS	Pipe Size	R-Value
IPWST01210	3/16" Copper	9.5
IPWST05810	1/4" Copper	9.1
IPWST07810	3/8" Copper	8.3
IPWST11810	1/2" Copper	7.7
IPWST13810	5/8" Copper	7.4
IPWST15810	3/4" Copper	7.3
IPWST21810	1" Copper	6.9
IPWST25810	1-1/4" Copper	6.6

1-1/2" WALLS	Pipe Size	R-Value
IPWST01215	3/8" Copper	12.7
IPWST05815	1/2" Copper	12.0
IPWST07815	3/4" Copper	10.9
IPWST11815	1" Copper	10.2
IPWST13815	1-1/4" Copper	9.7
IPWST15815	1-1/2" Copper	9.3
IPWST21815	2" Copper	8.7
IPWST25815	2-1/2" Copper	8.3

* These specifications are based on the measurement methods employed by Armacell. Other methods may not result in the same values and cannot be used to determine if the product is within the given tolerance.

AP ArmaFlex | White LapSeal Tube TDS | 122019 | NA| EN-A | 014

ABOUT ARMACELL

As the inventors of flexible foam for equipment insulation and a leading provider of engineered foams, Armacell develops innovative and safe thermal, acoustic and mechanical solutions that create sustainable value for its customers. Armacell's products significantly contribute to global energy efficiency making a difference around the world every day. With 3,100 employees and 24 production plants in 16 countries, the company operates two main businesses, Advanced Insulation and Engineered Foams. Armacell focuses on insulation materials for technical equipment, high-performance foams for high-tech and lightweight applications and next generation aerogel blanket technology.

For more information, please visit:
www.armacell.us
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