



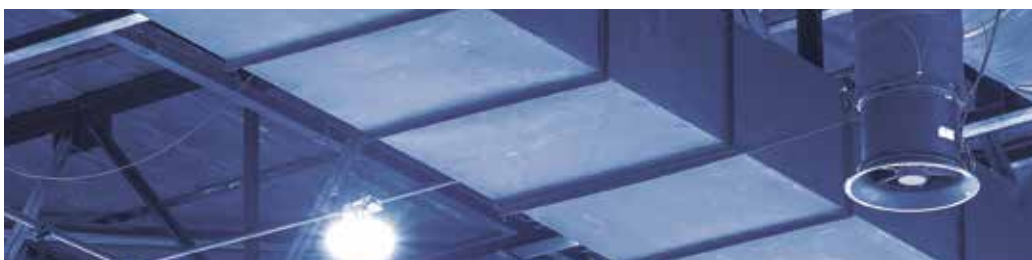
ENERGY SAVING SOLUTIONS

AP ArmaFlex[®] SA AP ArmaFlex[®] FS SA Self-adhering Duct Liner and Wrap

The original fiber-free, closed-cell thermal and acoustical duct insulation – with a labor-saving pressure sensitive system – engineered to safeguard IAQ, attenuate HVAC noise and reduce energy waste. AP ArmaFlex FS SA is PVC free.

- // Attenuates airborne noise to reduce background noise from HVAC systems
- // Meets ASHRAE 90.1, ASHRAE Standard 189.1, IECC and California Title 24 for increased energy efficiency
- // Designed to last the useful life of mechanical equipment
- // Pressure sensitive adhesive system saves installation labor costs

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 **armacell**[®]
ArmaFlex[®]

TECHNICAL DATA – AP ArmaFlex® SA and AP ArmaFlex® FS SA DUCT LINER AND WRAP - SELF ADHERING

Description

Black flexible closed-cell elastomeric thermal and acoustical duct insulation in sheet and roll form with a self-adhering backing

Specification Compliance

ASTM C 534, Type II — Sheet Grade 1 ASTM C 1534, Type I ASTM D 1056, 2C1	ASTM E 84, UL723 ASTM G21/C1338 CAN/ULC-S102 ①	City of New York Approval MEA 107-89M MIL-P-15280J, FORM S ② NFPA 90A, 90B	UL 181
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Approvals, Certifications, Compliances

- GREENGUARD Gold 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.
- Conforms to ASHRAE 90.1 Energy Standards
- Conforms to building codes: International Mechanical Code, IMC, International Energy Conservation Code, IECC, International Residential Code, IRC, Title 24 California Building Energy Efficiency Standards.
- AP ArmaFlex FS meets the living building challenge requirements. Red list compliant.

Typical Properties

Specifications	Values		Test Method
	AP ArmaFlex SA Through 1" Duct Liner and Wrap (NBR/PVC based)	AP ArmaFlex FS SA 1-1/2 and 2" Duct Liner and Wrap (EPDM based)	
Thermal Conductivity: Btu • in/h • ft ² • °F (W/mK)			
75°F Mean Temperature (24°C)	0.245 (0.0353)	0.28 (0.040)	ASTM C 177 or C 518
100°F Mean Temperature (38°C)	0.257 (0.037)	0.289 (0.041)	
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, UL 723 CAN/ULC-S102 ① — AP through 1"
Water Absorption, % by Volume:	0.2 %	0.2 %	ASTM C 209 or ASTM C1763
Mold Growth: Fungi Resistance:	Passed	Passed	UL181 ASTM G21/C1338
Maximum Service Temperature ③	180°F (82°C)	180°F (82°C)	
Minimum Service Temperature ④	-30°F (-34°C)	-30°F (-34°C)	
Erosion Resistance	Does not break away, flake off or show evidence or delamination at velocities of 10,000 ft/min		ASTM C 1071

① AP ArmaFlex meets CAN/ULC-S102 through 1" thickness.

② AP ArmaFlex meets MIL-P-15280J, FORM S through 1" thickness.

③ AP ArmaFlex and AP ArmaFlex FS Black Duct Liner/Wraps withstand temperature of 250°F (121°C) when tested according to ASTM C 411. "Test Method for Surface Performance of High-Temperature Insulations". At this temperature, AP/ ArmaFlex Duct Liner/Wrap insulation shows no evidence of flaming, glowing, smoldering, delamination, melting or insulation collapse. Although this insulation will withstand high temperatures, continuous use temperature should be limited to 180°F (82°C).

④ 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.

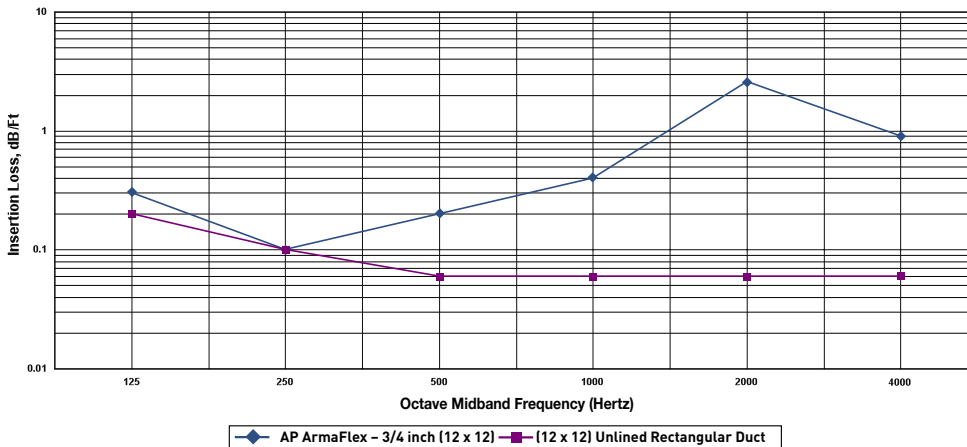
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R-Value	R-2.1		R-4.2		R-6		R-8	
Thickness:	1/2"		1"		1-1/2"		2"	
Sound Absorption Coefficients Frequency	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	NRC	SAA
Thickness Nom. 1" (25 mm)	0.01	0.13	0.39	0.69	0.29	0.26	0.40	0.38
Thickness Nom. 1-1/2" (38 mm)	0.07	0.26	0.92	0.31	0.49	0.53	0.50	0.49
Thickness Nom. 2" (50 mm)	0.14	0.62	0.44	0.43	0.51	0.45	0.50	0.51
Sizes								
Sheet: Width x Length	36" x 48" (.915 m x 1.22 m)							
Roll Width	48" (1.22 m) [all thicknesses] 56-1/4" (1.42 m), 59" (1.49 m), 60" (1.5 m) [1/2", 1", and 1-1/2" thick] (13, 25, 38 mm)							
Thickness	AP ArmaFlex SA Duct Liner and Wrap: 1/2", and 1" (13, 25 mm) AP ArmaFlex FS SA Duct Liner and Wrap: 1-1/2" and 2" (38, 51 mm)							
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.								

Sound Transmission Class (STC)

	Thickness	STC Class
AP Armaflex	Nom. 1/2" (13 mm)	25
AP Armaflex	Nom. 1" (25 mm)	25

Acoustics: Insertion Loss



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.

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AP ArmaFlex SA and AP ArmaFlex FS SA | Self-Adhering Duct Liner and Wrap TDS | 03021 | NA | EN-A | 031

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 3,135 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:
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