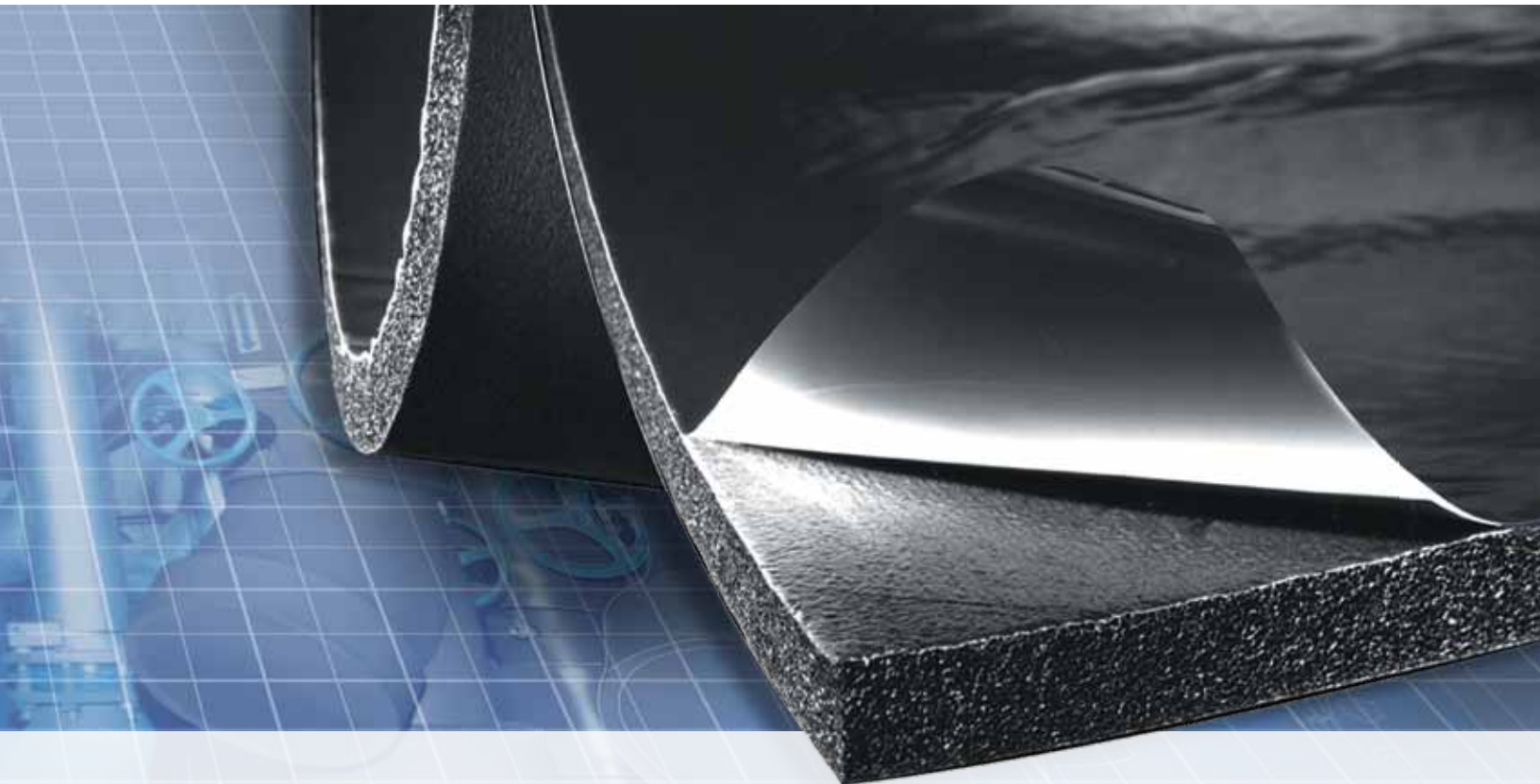


Fiber Free



THE MAKERS OF
Armaflex®



AP/Armaflex® SA

Self-Adhering Sheet & Roll Insulation

Superior Moisture Control on Large Jobs, Mold Resistant – Faster!



- Fiber Free, Closed Cell, Non-Wicking
- GREENGUARD Children & Schools Certified®
- Made with Microban® Antimicrobial Product Protection
- Thicknesses up to 2"
- 25/50 rated through 1" Wall
- 25/50 rated through 2" Wall available in AP Armaflex FS
(see AP Armaflex FS submittal form)
- Self-Adhering



AP Armaflex Self-Adhering Sheet & Roll Insulation

AP Armaflex SA Self-Adhering Sheet and Roll Insulation

saves labor and installation costs. It is a self-adhering version of the original closed cell, fiber-free elastomeric foam, the world's most recognized brand in flexible mechanical insulation.

- **Proven:** Faster way to insulate ductwork, large piping, fittings, tanks, vessels and curved or irregular surfaces
- **Mold resistant:** Made with Microban antimicrobial product protection
- **Indoor Air Quality-friendly:** Fiber-free, formaldehyde-free, low VOCs, nonparticulating. Suitable as a duct lining (see AP Armaflex SA Black Duct Liner)
- **Quiet:** Noise blocking and vibration dampening
- **Durable:** No fragile vapor retarder

Description

AP Armaflex SA Self-Adhering Sheet and Roll Insulation is a black flexible elastomeric thermal insulation. The expanded closed-cell structure makes it an efficient insulation. It is manufactured without the use of CFC's, HFC's or HCFC's. All AP Armaflex products are made with Microban® antimicrobial product protection for added defense against mold on the insulation. It is also effective for reducing HVAC noise.

- AP Armaflex Self-Adhering Sheet is supplied as flat sheets 36" x 48" (.915m x 1.22) in nominal wall thicknesses of 1/4", 3/8", 1/2", 3/4", 1", 1-1/2" and 2" (6, 10, 13, 19, 25, 38 and 50mm)
- AP Armaflex Self-Adhering Roll is supplied in 48" (1.22m) wide continuous rolls in nominal wall thicknesses of 3/8", 1/2", 3/4", 1", 1-1/2" and 2" (10, 13, 19, 25, 38 and 50mm)

Factory Mutual (FM) Approvals

AP Armaflex SA is approved through continuing supervision by Factory Mutual Approvals to consistently provide actual values on these key performance criteria for mechanical system insulation:

- **Thermal Conductivity:** 0.25 BTU-in/hr. ft² °F
- **Water Vapor Transmission:** 0.05 perm-inch
- **Fire Rating:** will not contribute significantly to fire (simulated end-use testing)

As tested by ASTM E 84 "Method of Test for Surface Burning Characteristics for Building Materials," AP Armaflex SA in wall thickness up to and including 2" (50mm) have a flame-spread index of less than 25 and a smoke-developed index of less than 50.

Note: Numerical flammability ratings alone may not define the performance of products under actual fire conditions. They are provided only for use in the selection of products to meet limits specified.

ALL ARMACELL FACILITIES
IN NORTH AMERICA ARE
ISO 9001:2008 CERTIFIED.

Uses

- Retards heat gain and controls condensation drip from chilled-water and refrigeration systems. Efficiently reduces heat flow on hot systems
- Acceptable in wall thicknesses through 1" (2.5mm) for use in air plenums and conforms to NFPA 90A and NFPA 90B requirements

The recommended temperature usage range for AP Armaflex SA Sheet and Roll is -297°F to +180°F (-183°C to +82°C). On cold systems, insulation thicknesses have been calculated to control condensation on the insulation outer surface, as shown in the table of thickness recommendations. AP Armaflex SA Sheet and Roll Insulation meets the energy code requirements of International Energy Conservation Code (IECC) and ASHRAE for **R-Value 4.2 at 1" wall thickness** and R-Value 8 at 2" wall thickness.

Application

In all cases, seams are to be sealed with one of our Armaflex adhesives: Armaflex 520, 520 Black or, where a low V.O.C. adhesive is required, 520 BLV. 520 Adhesives are contact adhesives; therefore, in all cases, both surfaces to be joined are coated with adhesive.

AP Armaflex is designed for installation above or below ground. For below ground applications, contact Armacell or see our Technical Bulletin No. 7 on our website, www.armacell.com. Outdoors, a weather-resistant protective finish is to be applied and Armaflex WB Finish is recommended.

Armaflex insulation products must be installed according to "Installation of Armaflex Insulations" brochure. Proper installation is required to assure Armaflex insulation performance.

Specification Compliance

AP Armaflex SA Sheet & Roll Insulation developed to meet:

ASTM C 534, Type II	MIL-P-15280J, FORM S
Sheet Grade 1	MIL-C-3133C (MIL STD 670B),
ASTM C 1534	Grade SBE 3
ASTM E 84, NFPA 255, UL 723	MEA 107-89M
CAN/ULC S102	City of Los Angeles RR 7642
NFPA 90A, 90B	
ASTM G21/C1338	
ASTM G22	
ASTM D 1056, 2B1	
UL 181	

UL 181 Meets requirements of ASTM C 411 @ 250°F (121°C) – Test Method for Hot Surface Performance of High-Temperature Insulations.

Physical Properties

Specifications	Values	Test Method
Thermal Conductivity, Btu • in./h • ft² • °F (W/mK) 75°F Mean Temperature (24°C) 90°F Mean Temperature (32°C)	0.25 (0.036) 0.256 (0.037)	ASTM C 177 or C 518
Water Vapor Permeability, Perm-in. [Kg/(s•m•Pa)]	0.05 (0.725 x 10 ⁻¹³)	ASTM E 96, Procedure A
Flame Spread and Smoke Developed Index through 1" (25mm)	25/50*	ASTM E 84 CAN/ULC S102
Mold Growth Fungi Resistance Bacterial Resistance	UL181 ASTM G21/C1338 ASTM G22	Meets requirements Meets requirements Meets requirements
Water Absorption, % by Volume	0.2%	ASTM C 209
Upper Use Limit	180°F (82°C)	—
Lower Use Limit[Ⓛ]	-297°F (-183°C)**	—
Ozone Resistance	GOOD	—
Sizes – Sheet Width and Length Thickness (nominal)	36" x 48" (.915m x 1.22m) 1/4", 3/8", 1/2", 3/4", 1", (1-1/2" and 2" non 25/50) (6, 10, 13, 19, 25, (38, 50mm non 25/50)	—
Sizes – Roll Width Thickness (nominal) x Length	48" (1.22mm) and 60" (1.53m) [†] 3/8" x 100' (10mm x 30.5m) 1/2" x 70' (13mm x 21.4m) 3/4" x 50' (19mm x 15.2m) 1" x 35' (25mm x 10.7m) 1-1/2" x 25' (38mm x 7.6m non-25/50) 2" x 18' (50mm x 5.4m non-25/50)	—

Notes

[Ⓛ] At temperatures below -20°F (-29°C), elastomeric insulation starts to become less flexible. However, this characteristic does not affect thermal efficiency or water vapor permeability of Armaflex insulation.

* For 25/50 above 1" (25mm), please see our AP Armaflex FS SA Submittal. FS products available in 1½" and 2" thicknesses.

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

Performance approved through continuing supervision by Factory Mutual Approvals.

Thickness Recommendations

For Controlling Outer Insulation Surface Condensation

(Based upon available manufactured thicknesses and not intended to supersede any state or local building codes.)

	Ducts/Tanks/Vessels/Equipment Metal Surface Temperature		
	50°F (10°C)	35°F (2°C)	0°F (-18°C)
BASED ON NORMAL DESIGN CONDITIONS AP Armaflex in the thicknesses noted and within the specified temperature ranges will control outer insulation surface condensation indoors under normal design conditions, a maximum severity of 85°F (29°C) and 70% RH . Armacell research and field experience indicate that indoor conditions anywhere in the United States seldom exceed this degree of severity.	Nom 3/8" (10mm)	Nom 3/4" (19mm)	Nom 1-1/2" (38mm)
BASED ON MILD DESIGN CONDITIONS AP Armaflex in the thicknesses noted and within the specified temperature ranges will control outer insulation surface condensation indoors under mild design conditions, a maximum severity of 80°F (27°C) and 50% RH . Typical of these conditions are most air-conditioned spaces and arid climates.	Nom 1/8" (3mm)	Nom 1/4" (6mm)	Nom 1/2" (13mm)
BASED ON SEVERE DESIGN CONDITIONS AP Armaflex in the thicknesses noted and within the specified temperature ranges will control outer insulation surface condensation indoors under severe design conditions, a maximum severity of 90°F (32°C) and 80% RH . Typical of these conditions are indoor areas in which excessive moisture is introduced or in poorly ventilated confined areas where the temperature may be depressed below ambient.	Nom 1" (25mm)	Nom 1-1/2" (38mm)	Nom 2" (50mm)
For VERY SEVERE DESIGN CONDITIONS which Armacell will consider temperatures above recommended insulation 90°F (32°C) and/or above 80% RH .	Consult Armacell for recommended insulation thickness		

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