

Description

AP Armaflex SA Self-Adhering Sheet and Roll Insulation is a flexible, elastomeric thermal insulation, black in color.

- Sheets are supplied as flat sheets 36" x 48" (.915m x 1.22m), in thicknesses of 1/4", 3/8", 1/2", 3/4", 1", 1-1/2" and 2" (6, 10, 13, 19, 25, 38, 50mm).
- Rolls are supplied in 48" (1.22m) wide continuous rolls in thicknesses of 3/8", 1/2", 3/4", 1", 1-1/2" and 2" (10, 13, 19, 25, 38, 50mm).

The expanded closed-cell structure of Armaflex makes it an efficient insulation.

Factory Mutual Approved System

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

Thermal Conductivity: 0.27 BTU-in/hr sq.ft. °F

Water Vapor Transmission: 0.08 perm-inches

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 of Building Materials, AP Armaflex SA in thicknesses 1" (25mm) has a flame-spread rating of 25 or less and a smoke-developed rating of 50 or less.

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.

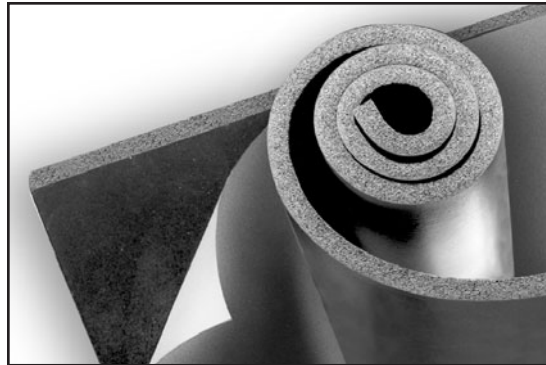
Uses

Flexible AP Armaflex SA Sheet and Roll Insulation is used for all applications that cannot be accomplished by AP Armaflex Pipe Insulation. It is particularly adaptable for insulating:

- ductwork
- large piping and fittings
- tanks
- vessels
- curved and irregular surfaces
- it is also suitable as a duct lining (see AP Armaflex SA Duct Liner)

The recommended temperature usage range for AP Armaflex SA Sheet Insulation is -58°F to +180°F (-50°C to +82°C).

AP Armaflex SA is acceptable in thicknesses through 1" for use in air plenums. Conforms to NFPA 90A and NFPA 90B requirements.



Resistance To Moisture Vapor Flow

The closed-cell structure of Armaflex Insulations effectively retards the flow of moisture vapor, and Armaflex is considered a low-transmittance vapor retarder. Additional vapor-retarder protection may be necessary on very low-temperature surfaces or piping where the insulation is exposed to continually high humidity conditions.

Application

AP Armaflex SA Sheet Insulation is designed for installation above ground. Outdoors, a weather-resistant protective finish is to be applied. WB Armaflex Finish is recommended. External duct work should be pitched to allow rainwater to run off the insulation.

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 meets:

ASTM C 534, Type II -- Sheet, Grade 1

ASTM C 1534

ASTM E 84

NFPA 255

UL 723

CAN/ULC-S102

NFPA 90A, 90B

ASTM D 1056, 2B1

MIL-P-15280J, FORM S

MIL-C-3133C (MIL STD 670B), Grade SBE 3

MEA 107-89-M

City of Los Angeles -- RR 7642

CGSB CAN 2-51.40-M80

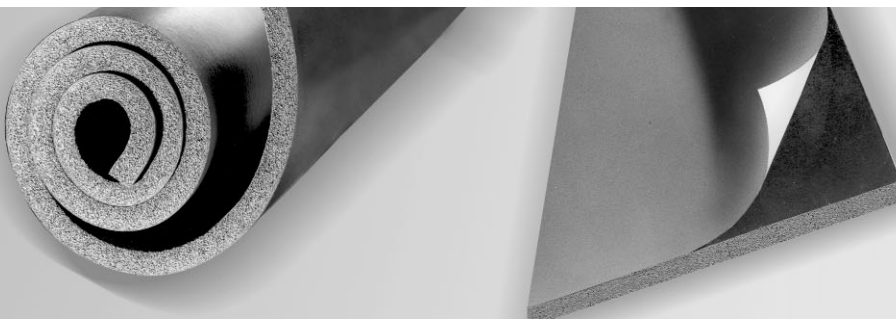
UL181

Meets requirements of ASTM C 411 @ 250°F

(121°C)—Test Method for Hot Surface

Performance of High-Temperature Insulations.

AP/Armaflex®
SA (SELF-ADHERING) SHEET & ROLL



Physical Data

Physical Properties

Test Method

Thermal conductivity, Btu • in./h • ft ² • °F [W/(m • K)] 75°F mean temp (24°C) 90°F mean temp (32°C)	0.27 (0.039) 0.276 (0.040)	ASTM C 177 or C 518
Water vapor permeability, perm-in. [Kg/(s•m•Pa)]	0.08 (1.16 x 10 ⁻⁹)	ASTM E 96 Procedure A
Water absorption, % by volume	0.2	ASTM C 209
Flame and smoke ratings through 1" (25mm)	25/50	ASTM E 84
Ozone resistance	GOOD	
Upper use limit, °F	180 (82°C)	
Lower use limit, °F (See note 1)	-58 (-50°C)*	
Sizes Sheet Width and length Thickness	36" x 48" (.915m x 1.22m) 1/4", 3/8", 1/2", 3/4", 1", 1-1/2", 2" (6, 10, 13, 19, 25, 38, 50mm)	
Sizes Roll Thickness x Length	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) 2" x 18' (50mm x 5.5m)	
Density, typical range (See note 2)	3.0 - 6.0 lbs./ft ³	ASTM D1622 or D1667

Notes

① At -20°F, flexible AP Armacell SA Insulation becomes hard and, as temperatures drop below -20°F, will be increasingly brittle; however, this hardening characteristic does not affect thermal efficiency and resistance to water vapor permeability.

② Reference only.

* For applications between -40°F to -70°F (-40°C to -57°C) contact Armacell.

Performance approved through continuing supervision by Factory Mutual Research Corporation.

The data and information are provided as a technical service and are subject to change without notice.



ARMACELL LLC
7600 Oakwood Street Extension
P. O. Box 1038, Mebane, NC 27302

TEL. 919 304-3846 • FAX 919 304-3847
E-MAIL info.us@armacell.com
INTERNET www.armacell.com