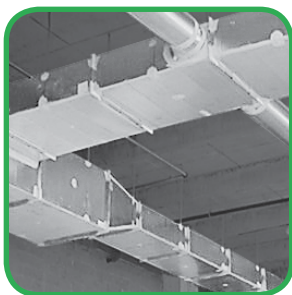


# AP Armaflex®

## SA Black Duct Liner

**Mold resistant. Fiber free. Quieter.**



- The IAQ Insulation™ for air ducts
- GREENGUARD Indoor Air Quality Certified®
- Made with Microban® antimicrobial protection: EPA Registered for ductwork, including hospitals
- Reduces HVAC noise



## Duct Liner

**AP Armaflex SA Black Duct Liner** is a patented\* non-fibrous duct liner with an advanced, pressure sensitive adhesive system for non-pinned field applications.

- **Mold resistant:** Made with Microban® antimicrobial product protection.
- **Indoor Air Quality:** Fiber-free, formaldehyde-free, low VOCs, non-particulating. GREENGUARD Indoor Air Quality Certified®
- **Smooth surface:** Reduces dirt, wipes clean
- **Plenum rated:** Safe for institutional air ducts, meets NFPA standards
- **Noise blocking and vibration dampening**

### Description

**AP Armaflex SA Duct Liner / Wrap** is a black, flexible elastomeric thermal insulation. Its closed-cell structure prevents condensation and moisture wicking, and makes it an efficient insulation. It is manufactured without the use of CFCs, HFCs or HCFCs. The Microban® antimicrobial protection is registered by the Environmental Protection Agency for use in air ducts (EPA Reg. No. 1258-840-42182). It is added during manufacturing to provide an extra level of defense in the natural mold resistance of AP Armaflex.

AP Armaflex SA Duct Liner is also effective for reducing HVAC noise.

It is supplied in 36" x 48" sheets and in rolls 48" and 60" wide, in thicknesses up to 1".

### Approvals and Compliance

Product approved through continuing supervision by Factory Mutual Approvals to provide consistent actual values for thermal conductivity, water vapor transmission and fire rating.

AP Armaflex SA Black Duct Liner / Wrap also meets requirements of NFPA 90A and 90B for Duct Coverings and Linings, and UL 181 for Mold Growth. Approved for use in return air plenums, conforms to ASTM C 1534 requirements and withstands temperatures of 250°.

All AP Armaflex insulation meets requirements of International Energy Conservation Code (IECC) and ASHRAE for R-Value 4.2

ALL ARMACELL FACILITIES IN NORTH AMERICA ARE ISO 9001:2000 CERTIFIED.

at 1" thickness.

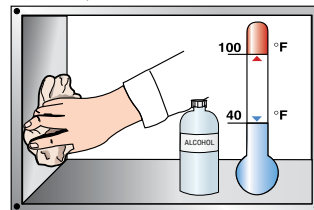
### Uses and Applications

AP Armaflex SA Black Duct Liner / Wrap is ideal for air handling systems, VAV units, ducts and other air system components requiring condensation control, resistance to moisture, damage or heat gain; or HVAC noise blocking or sound dampening. Application areas include schools, hospitals, hotels, commercial and public buildings.

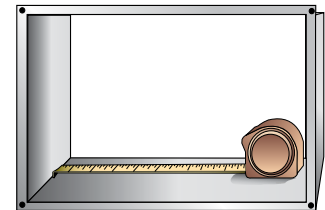
### Installation

*Note: Must be installed according to "Installation of Armaflex Insulations" publication (000-005).*

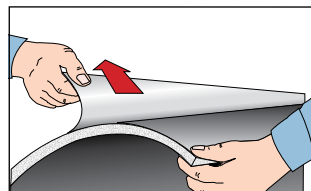
When air stream velocities exceed 4,000 FPM (20.3m/second), metal nosing should be applied to every leading edge. Nosing may be formed on ducts or be channeled or zee-attached by screws, rivets or welds.



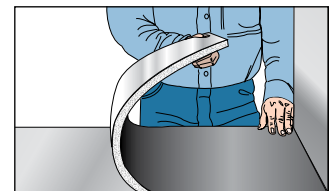
The temperature of the air and of the insulation should be between 40°F (4°C) and 100°F (38°C) at the time of installation.



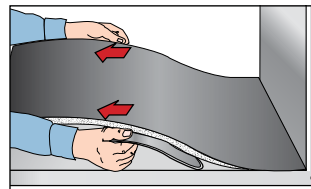
Prepare surface by cleaning with appropriate cleaner. Measure.



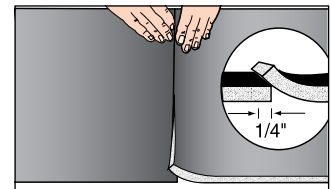
Cut with sharp knife. Peel back enough release liner to start.



Square off sheet along an edge or corner. Press the sheet to the surface taking care not to trap any air.



Reach behind the Armaflex sheet and peel liner back while pressing the sheet to the surface.



Press firmly. Butt joints require the use of compression joints to prevent the possible opening of seams.

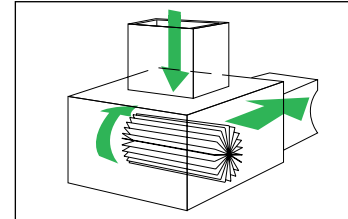
## Duct Liner

[www.armacell.com/us](http://www.armacell.com/us)

For the latest document, please refer to our website.

**AP/Armaflex SA Black Duct Liner / Wrap**  
**Patented\* for Air Systems that Require an Alternative Duct Liner / Wrap**

Features	Benefits
<b>Advanced, aggressive PSA</b>	No pinning required, faster installation
<b>Closed cell structure</b>	Resists moisture, nonwicking Reduced water presence in system and insulation Noise blocking Nondusting Longer life Won't contribute to air quality problems
<b>Made with Microban antimicrobial product protection</b>	Resists mold on the insulation EPA registered for use in air duct insulation
<b>Smooth surface that reduces dirt and debris accumulation</b>	Inhibits amplification of biological contaminants Basis for continuing system hygiene
<b>Elastomeric material</b>	Fiber free Resistant to incidental damage No special tools; no dust mask required during fabrication and installation
<b>Inherent vapor retarder</b>	Requires no mastics Competitive total installed cost



\* US Patent 5971034 – “Thermal Duct Lining Insulation” for lining variable air volume boxes, air handling units, and ducts for heat ventilation and air conditioning.

**Physical Properties**

Specifications	Values	Test Method
<b>Thermal Conductivity, Btu • in./h • ft² • °F (W/mK)</b> 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
<b>Water Vapor Permeability, Perm-inch. [Kg/(s•m•Pa)]</b>	0.05 [0.725 x 10 <sup>-13</sup> ]	ASTM E 96, Procedure A
<b>Flame Spread and Smoke Developed Index ① Through 1" (25 mm)</b>	25/50	ASTM E 84 CAN ULC S-102
<b>Mold Growth Fungi Resistance Bacterial Resistance</b>	UL181 ASTM G21/C1338 ASTM G22	Meets requirements Meets requirements Meets requirements
<b>Water Absorption, % by Volume</b>	0.2%	ASTM C 209
<b>Upper Use Limit ②</b>	180 °F (82 °C)	
<b>Lower Use Limit ③</b>	-297 °F (-183 °C)	
<b>Erosion Resistance</b>	Does not break away, flake off or show evidence of delamination at velocities of 10,000 ft/min	ASTM C 1071
<b>Corrosiveness</b>	Noncorrosive	ASTM C 665
<b>Odor Emissions</b>	No objectionable odors	ASTM C 665
<b>Density, Typical Range ④</b>	3.0 – 6.0 lbs/ft	ASTM D 1622 ASTM D 1667

**Notes**

- ① AP/Armaflex SA Duct Liner has a flame spread index of less than 25 and a smoke developed index of less than 50 for all thicknesses up to and including 1" (25 mm) when tested according to ASTM E 84 and CAN ULC S-102. 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.
- ② Withstands 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 SA Duct Liner 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).
- ③ 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.
- ④ Reference Only  
Performance approved through continuing supervision by Factory Mutual Approval.

**Sound Absorption Coefficients at Frequency**

Thickness	125Hz	250Hz	500Hz	1000Hz	2000Hz	4000Hz	NRC†
Nom. 1" (25mm)	0.05	0.17	0.080	0.44	0.60	0.49	0.50

**Sound Transmission Class (STC)**

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

**Sizes**

Sheet Width / Length	36" x 48"
Roll Width	48" (all thicknesses) and 60" (1" only)
Wall Thickness	3/8", 1/2", 3/4" and 1"

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