AP/Armaflex® FS

Sheet & Roll Insulation

The original, fiber-free, flexible elastomeric pipe, valve and duct insulation for reliable protection against condensation, mold and energy loss



- Fiber-free, formaldehyde-free, low VOC and non-particulating formulation protects indoor air quality
- Closed-cell structure provides excellent condensation control
- Built-in vapor barrier eliminates need for additional vapor retarder
- Microban® antimicrobial product protection provides exceptional mold resistance
- 25/50 rated for use in air plenums up to 1" thickness in AP Armaflex and 1-1/2" and 2" thickness in AP Armaflex FS
- Thickness up to 2" with R-value up to R-8









Technical Data: AP Armaflex® and AP Armaflex® FS Sheet and Roll Insulation

Description:

Black flexible closed-cell elastomeric thermal insulation in sheet and roll form

Specifications Compliance:

ASTM C 534, Type II — ASTM E 84, NFPA 255, UL723 MEA 107-89M NFPA 90A, 90B
Sheet Grade 1 ASTM G21/C1338 MIL-P-15280J, FORM S² UL 181
ASTM C 1534 ASTM G22 MIL-C-3133C [MIL STD 670B] UL 94 5V-A, V-0, File E55798
ASTM D 1056, 2B1 CAN/ULC S102¹ Grade SBE 3² City of LA - RR 7642

Approvals, Certifications, Compliances:

- 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 9001:2008 certified.

| Typical Properties | | | | | |
|--|-----------------------------------|----------------------------------|-----------------------------------|--|--|
| Specifications: | Values | Values | | | |
| | AP Armaflex Through 1" | AP Armaflex FS 1-1/2" & 2" | AP Armaflex 1-1/2" & 2" | | |
| 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) | 0.28 (0.040) 0.286 (0.041) | 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) | 0.08 (1.16 x 10 ⁻¹³) | 0.05 (0.725 x 10 ⁻¹³) | ASTM E 96, Procedure A | |
| Flame Spread and Smoke Developed Index: | 25/50 rated | 25/50 rated | Does not pass | ASTM E 84 CAN/ULC S102 ¹ | |
| Water Absorption, % by Volume: | 0.2% | 0.2% | 0.2% | ASTM C 209 | |
| Mold Growth: Fungi Resistance: Bacterial Resistance: | Passed | Passed | Passed | UL181 ASTM G21/C1338 ASTM G22 | |
| Upper Use Limit: 3 | 220°F (105°C) | 220°F (105°C) | 220°F (105°C) | ASTM C534 | |
| Lower Use Limit: 4 | -297°F (-183°C) ⁵ | -297°F (-183°C) ⁵ | -297°F (-183°C) ⁵ | ASTM C534 | |
| Ozone Resistance: | GOOD | GOOD | GOOD | Ozone Chamber Test | |

| R-Value: | R-1.6 | R-2.1 | R-3.1 | R-4.2 | R-6 | R-8 |
|------------|-------|-------|-------|-------|--------|-----|
| Thickness: | 3/8" | 1/2" | 3/4" | 1" | 1-1/2" | 2" |

| Sizes: | | |
|---|---|--|
| Sheet: Width x Length Thickness (nominal) | 36" x 48" (.915m x1.22m) 1/8", 1/4", 3/8", 1/2", 3/4", 1", 1-1/2" & 2" (3, 6,10, 13, 19, 25, 38 & 50mm) | |
| Roll: Width Thickness (nominal) x Length | 48" wide (1.22m) 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 5.4m) | |

¹ AP Armaflex meets CAN/ULC S102 through 1" thickness.

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| AP Armaflex & FS | Sheet Roll | Submittal | 015 | Eng/USA | 1/2013 |
|------------------|------------|-----------|-----|---------|--------|
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 $^{^2}$ AP Armaflex meets MIL-P-15280J, FORM S and MIL-C-3133C (MIL STD 670B) Grade SBE through 1" thickness.

³ On the heating cycle, AP Armaflex Pipe 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).

⁴At 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.

⁵ For applications of -40°F to -297°F (-40°C to -183°C), contact Armacell.