

# ArmaTuff®

## Laminated Sheets & Rolls

**New ArmaTuff! Tougher than ever.**



- Armaflex with heavy-duty 12 mil laminate
- No painting required
- 10-year membrane warranty
- Puncture-resistant, embossed surface
- Durable, maintenance-free
- Available with or without pressure sensitive adhesive

## ArmaTuff® Laminated Sheets & Rolls

**ArmaTuff** is the premiere Armacell Coating System for outdoor applications. It provides a tough metal surface on Armaflex insulation for superior protection against ultraviolet radiation and punctures.

- **Maintenance-free:** UV- and damage resistant 12 mil laminate
- **Long-lasting protection:** 10-year membrane limited warranty
- **Flexible application:** Available with or without PSA
- **Color:** White

### Description

**ArmaTuff** is Armaflex insulation with a 12 mil laminated covering membrane. The membrane has a 10-year limited warranty against break-down due to UV radiation. Armaflex is a mold-resistant 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.

It is available in 36" x 48" sheets (with or without pressure sensitive adhesive) and in rolls 48" wide (without PSA), in 1", 1-1/2", 2" thicknesses.

### Uses and Applications

**ArmaTuff** is designed to be used for all exterior applications: Exterior ducts, tanks, vessels, large pipes and fittings. The laminate is resistant to UV, ozone, acid rain and most industrial pollutants. No painting is required.

### Application

**ArmaTuff** is installed using Armaflex Adhesives or with pre-applied pressure sensitive adhesive (PSA) for application to large, flat or curved metal surfaces such as ducts, vessels, very large pipes or tanks. The seams must be installed in compression and sealed with Armaflex Adhesives. Cover the seam with ArmaTuff Seal Tape. Armaflex 520 Adhesive is a contact adhesive: therefore it must be applied to both surfaces, allowed to get tacky, and the surfaces joined with pressure. Exterior duct work must be pitched to allow rain water to run off the insulation.

ArmaTuff is designed for installation in above ground applications.

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

The application temperature should be above 40°F (+4°C) and 100°F (+38°C).

### Installation

#### Applying Non-Self Adhering ArmaTuff



1. Always prepare surface by cleaning with denatured alcohol.



2. Apply thin, uniform coat of Armaflex 520 Adhesive.



3. Roll thin coat of 520 Adhesive to insulation.



4. Position carefully and apply ArmaTuff. Contact adhesive bonds instantly.



5. Apply ArmaTuff to top surface, overlapping the side pieces.



6. Seal and protect exposed edges and seams with ArmaTuff Seal Tape.

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

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

For the latest document, please refer to our website.

## Physical Properties

Specifications	Values	Test Method
<b>Thermal Conductivity, Btu • in./h • ft<sup>2</sup> • °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-in. [Kg/(s•m•Pa)]</b>	Laminate 0.00 Foam 0.05	ASTM E 96, Procedure A
<b>Mold Growth Fungi Resistance Bacterial Resistance</b>	Meets requirements	UL181 ASTM G21/C1338 ASTM G22
<b>Water Absorption, % by Volume</b>	0.2%	ASTM C 209
<b>Upper Use Limit</b>	180°F (82°C)	—
<b>Lower Use Limit</b> <sup>Ⓢ</sup>	-297°F (-183°C)*	—
<b>UltraViolet (UV) Resistance</b>	Excellent	ASTM G 90 QUV Chamber
<b>Chemical Resistance</b>	Excellent	—
<b>Weatherability</b>	Excellent	ASTM D471
<b>Durability</b>	Excellent	—
<b>Density, Typical Range</b> <sup>Ⓢ</sup>	3.0 - 6.0 lbs./ft. <sup>3</sup>	ASTM D 1622 or D 1667
<b>Sizes – Sheet – With or Without Adhesive Width and Length Thickness (nominal)</b>	36" x 48" (0.915 m x 1.22 m) 1", 1-1/2" and 2" (25, 38 and 50 mm)	—
<b>Sizes – Roll – Without Adhesive Width Thickness (nominal) x Length</b>	48" (1.22 m) 1" x 35' (25 mm x 10.7 m) 1-1/2" x 25' (38 mm x 7.6 m) 2" x 18' (50 mm x 5.4 m)	—

### 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 ArmaTuff.

Ⓢ Reference only.

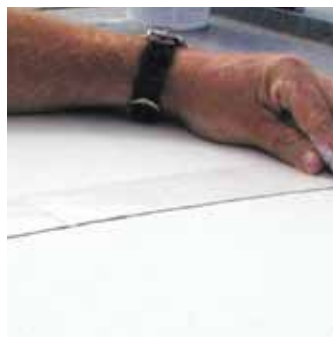
\* For applications of -40°F to -297°F (-40°C to -183°C), contact Armacell.

### Finishing the Installation with ArmaTuff Seal Tape

ArmaTuff is a complete insulation system providing durable, UV-resistant and maintenance-free outdoor performance. Tape is backed with pressure sensitive adhesive and designed to provide protection along the seams and exposed edges of the insulation. Tape is supplied in rolls 6"-wide for sealing seams and exposed edges of ArmaTuff.



Apply ArmaTuff Seal Tape along all exposed edges of ArmaTuff installations. Finish by applying even pressure, using a roller.



Use the ArmaTuff Seal Tape for weather-tight seam protection. Use roller to finish.

**ARMACELL LLC**

TEL: 1 800 866-5638

FAX: 919 304-3847

info.us@armacell.com

www.armacell.us

7600 Oakwood Street Extension • Mebane, NC 27302



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