

# MEPNN Supplier Scouting Opportunity Synopsis

## Section 1: General Information

Scouting Number	2025-126
Item to be Scouted	Insulation Materials
Days to be scouted	21
Response Due By	05/16/2025
Description	Insulation Materials: Arctic Fiber & RFOIL Bubble Seeking U.S.-based suppliers for two types of insulation materials used in

## Section 2: Technical Information

Type of supplier being sought	~2.5/(inch) Distributor
Reason	Foil-backed double bubble insulation (radiant/vapor barrier, fire-rated, ~5/16" thick) 2nd Supplier
Describe the manufacturing processes (elaborate to provide as much detail as possible)	Materials must perform well in extreme weather and humid climates. Delivery to Homer, Alaska. Arctic Fiber – 100% Non-Woven Polyester Blanket Manufacturing Summary: Arctic Fiber is produced using a non-woven, thermally bonded process. Polyester fibers are carded into a web, then thermally bonded—without adhesives—by heating to activate a low-melt component that fuses the fibers at contact points. The result is a high-loft, lightweight, mold-resistant blanket with water-repellent properties. It's cut to standard sizes and vacuum-packed for shipping. Commonly used in cold weather applications for exterior piping and equipment.  RFOIL Bubble – Poly-Reflective Double Bubble Insulation Manufacturing Summary: RFOIL insulation consists of two polyethylene bubble layers laminated between a reflective metalized film and a white polyethylene sheet. The bubble core provides thermal resistance, while the reflective surface acts as a radiant barrier. The lamination process ensures a durable, washable finish that meets Class 1/Class A fire ratings and is resistant to UV, moisture, and pests. Offered in various roll sizes with installation-friendly edge options.

<p>Provide dimensions / size / tolerances / performance specifications for the item</p>	<p>Product 1: Arctic Fiber – 100% Non-Woven Polyester Blanket</p> <p>Dimensions &amp; Sizes:</p> <p>Standard Roll Sizes:</p> <p>1" thick: 60" wide x 75' long</p> <p>2" thick: 60" wide x 35' long</p> <p>Roll Packaging: Vacuum packed; approx. 2' diameter x 5' long</p> <p>Weight (Approx.): 25 lbs. per roll (both 1" and 2")</p> <p>Tolerances:</p> <p>Dimensions and weights may vary due to the manufacturing process; all specifications are nominal.</p> <p>Performance Specifications:</p> <p>R-Value (ASTM C518 - 2017): 2.52 per inch</p> <p>Density (ASTM D1667-17): 0.97 lbs./cubic foot</p> <p>Water Vapor Sorption (ASTM C1104):</p> <p>By weight: &lt; 0.3%</p> <p>By volume: &lt; 0.003%</p> <p>Temperature Limit: Up to 190°F</p> <p>Fire Rating: Not ASTM E84 25/50 compliant unless encapsulated in rated lagging</p> <p>Moisture Behavior: Water-repellent; allows moisture to drain and evaporate without degrading insulation value</p> <p>Mold Resistance: Does not promote mold growth</p> <p>Physical Properties:</p> <p>Not a skin or respiratory irritant</p> <p>Easily cut with scissors or utility knife</p> <p>Product 2: RFOIL Bubble – Poly-Reflective Double Bubble Insulation</p> <p>Dimensions &amp; Sizes:</p> <p>Nominal Thickness: 5/16"</p> <p>Standard Roll Sizes (WxL):</p> <p>48" x 125'</p> <p>72" x 102'</p> <p>72" x 125'</p> <p>Weight: 0.79 oz/sq. ft.</p> <p>Tolerances:</p> <p>Manufactured to standard commercial tolerances; laminated structure prevents delamination and cracking (ASTM C1224)</p> <p>Performance Specifications:</p> <p>Thermal Resistance (ASTM C1224):</p> <p>R-6.6 (Up)</p> <p>R-8.5 (Horizontal)</p> <p>R-15.2 (Down)</p> <p>Emissivity (ASTM C1371): 0.06</p> <p>Reflectivity (ASTM E903): 0.94</p> <p>Temperature Range (ASTM C411): -50°F to 180°F</p> <p>Fire Ratings:</p> <p>Surface Burn (ASTM E84): Class 1 / Class A</p> <p>Full Room Burn (NFPA 286): Pass</p> <p>Water Vapor Permeability (ASTM E96/CGSB 51.33-M89): Conforms to Type I</p> <p>Fungi &amp; Bacteria Resistance (ASTM C1338): Does not promote growth</p> <p>Physical Integrity (ASTM C1224):</p> <p>No bleeding</p> <p>No cracking or delamination under stress</p>
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List required materials needed to make the product, including materials of product components	<p>Arctic Fiber – 100% Non-Woven Polyester Blanket  Primary Material: High-loft polyester fiber (100% non-woven)  Binding Method: Thermal bonding using low-melt polyester fibers  Optional Component: Fire-rated lagging (e.g., silicone or vinyl-coated fabric) for code compliance in rated spaces</p> <p>RFOIL Bubble – Poly-Reflective Double Bubble Insulation  Core Material: Low-density polyethylene (LDPE) double bubble layer  Outer Layers:  Reflective Side: Metalized polyester film or aluminum foil  Interior Side: White polyethylene sheet  Additives:  UV inhibitors  Fire retardant treatments (to meet ASTM E84 / NFPA 286 standards)  Adhesives/Sealants: Used in lamination and edge sealing</p>
Are there applicable certification requirements?	Yes
Details	<p>Arctic Fiber – 100% Non-Woven Polyester Blanket  Applicable Certifications &amp; Standards:  ASTM C518: R-Value testing standard (thermal resistance)  ASTM D1667: Density measurement  ASTM C1104: Water vapor sorption  Fire Safety Note:  Not compliant with ASTM E84 25/50 (Flame/Smoke) unless encapsulated in a compliant fire-rated lagging material.  Not for indoor use in fire-rated spaces unless properly encapsulated per local code requirements.</p> <p>RFOIL Bubble – Poly-Reflective Double Bubble Insulation  Applicable Certifications &amp; Standards:  ASTM E84 (Surface Burn Test): Class 1 / Class A fire rating  NFPA 286 (Full Room Burn Test): Pass (per 2003 IBC 803.2.1)  ASTM C1224: Thermal resistance, delamination, bleeding, and pliability  ASTM C411: Temperature range performance  ASTM C1371: Emissivity  ASTM E903: Reflectivity  ASTM E96 / CGSB 51.33-M89: Water vapor permeability  ASTM C1338: Resistance to fungi and bacteria</p>
Are there applicable regulations?	No
Are there any other standards, requirements, etc.?	No
Additional Technical Comments	

## Section 4: Business Information

Estimated potential business volume	First shipment: Arctic Fuzz or similar, 3,350 linear feet at 5' wide   Reflectex bubble wrap insulation double bubble, 3800 linear feet for 4' wide. Continuous orders in the future, with volume growth.
Estimated target price / unit cost information (if unavailable explain)	1 oz arctic fiber (or similar product) x 60"x 60' 159.85. Reflectex double bubble 48"x 100' 60.00 a roll.
When is it needed by?	June 2025
Describe packaging requirements	Rolled and wrapped for shipment.
Where will this item be shipped?	Homer, Alaska

## Additional Comments

Is there other information you would like to include?	
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# ARCTIC FIBER

## 100% Non-Woven Polyester Blanket



**Arctic Fiber** is a high-loft 100% non-woven, thermally bonded polyester blanket insulation designed specifically for the insulation industry. Its inherent properties make it ideal for special applications and can be used as an alternative insulating material in ambient to cold weather applications. Its main use is in the fabrication of blankets, pads and covers on exterior pipe, flanges, valves, and other special equipment. For decades, Arctic Fiber has been used in the oil fields of Alaska on ambient to cold exterior piping systems and equipment for the purposes of freeze protection.

**Arctic Fiber** polyester blanket insulation is inherently water repellent, resulting in many benefits over traditional blanket insulation materials:

- Less than .004% water vapor sorption by volume.
- Allows trapped moisture to pass through it without being held in place. Many traditional types of fiber insulation will trap moisture and retain it, causing thermal values to decrease or in some cases cause insulation to freeze.
- If it gets wet, it doesn't stay wet. Gravity carries moisture (water) down and through, leaving the rest of the blanket dry and back to its original R-value.
- Pads, blankets, and covers dry out quickly, retaining original R-values. Thus, reducing costly replacement of saturated blankets/pads.
- Polyester batt insulation will not promote mold growth.

### Additional Benefits:

- Lightweight and easily fabricated to desired dimensions with a utility knife or material scissors.
- Is not an irritant and will not cause skin irritation.
- Not a respiratory hazard, reducing the need for skin, eye, and respiratory PPE.
- Excellent insulation system when used in concert with lagging (i.e. vinyl coated fabric, silicone coated fabrics, etc.) as freeze protection blankets/pads.

### Additional uses:

- OEM furniture manufactures
- Used as wall insulation in the van conversion industry
- Batt insulation in areas of high moisture

### Dimensions:

- Vacuum packed sleeve approx. 2' dia. x 5'
- Weight (approximate) both 1" and 2" rolls - 25 lbs.

### Limitations:

- Not recommended for indoor use in a fire rated space unless encapsulated with a fire rated (25/50) lagging (refer to local code).
- Does not meet the requirements of ASTM E84 25/50 smoke/flame developed.

### Note:

Due to the manufacturing process, weights and dimensions will vary. The measurements recorded on this data sheet are approx. and should be used as "nominal".

### Technical Specifications:

**ASTM C518 - 2017** R-Value (calculated off Clo) 2.52/inch

ASTM D1667-17-Density .97 lbs./cubic ft

ASTM C1104- Water Vapor Sorption:

% by weight	Less than .3%
% by volume	Less than .003%

Temperature limit	190 degrees F
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### Standard sizes:

1" roll size- 60"x 75' 1.0 **oz/cu**

2" roll size- 60"x 35' 2.0 **oz/cu**

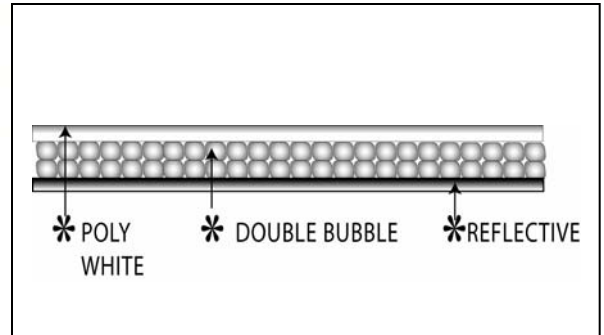


## POLY-REFLECTIVE DOUBLE BUBBLE INSULATION

### Product Description:

TVM Poly-Reflective Double Bubble Insulation is a double layer of polyethylene bubbles, sandwiched between a highly reflective surface, and a white polyethylene sheet. It is ideal for many residential and commercial building applications, including walls and ceilings.

Adding TVM Insulation to your construction project improves the insulation value of the building envelope, and significantly increases it's energy efficiency. As well, all products in this line are classified as Class 1/Class A in accordance with the ASTM-E84 fire test standard; These products also pass the NFPA 286 Full Room Burn Test. UV inhibitors help provide a durable and lasting finish.



### Stock Sizes Available (Rolls):

<b>Size</b>	48" X 125'	72" X 102'	72" X 125'
<b>Part No.</b>	2520-48-125 (Square)	2522-72-102 (2 Tab)	2520-72-125 (Square)
	2522-48-125 (2 Tab)	2523-72-102 (Quick Seam)	2522-72-125 (2 Tab)
	2523-48-125 (Quick Seam)		

### Features:

- Class 1/Class A Fire Rating
- Passes the NFPA 286 full room burn test
- Neat, UV resistant, washable finish.
- 94% Reflectivity for optimal thermal performance
- Radiant and vapor barrier all-in-one
- Resistant to Bird and Rodent infestation

### Applications:

- Metal Buildings (roof, walls)
- Residential Wall Cavities
- Post Frame Buildings

PHYSICAL PROPERTIES	TEST	Reflective / Double Bubble / White Poly
NOMINAL THICKNESS	--	5/16"
WEIGHT	--	.79 oz/sq. ft.
TEMPERATURE RANGE	ASTM C411	-50°F to 180°F
FIRE RATING – Surface Burn	ASTM E84	CLASS 1 / CLASS A
FIRE RATING – Full Room Burn	NFPA 286	PASS (2003 IBC 803.2.1)
THERMAL RESISTANCE – 3.5" cavity	ASTM C1224	R-6.6 (Up), R-8.5 (Horiz), R-15.2 (down)
EMISSION	ASTM C1371	0.06
REFLECTIVITY	ASTM E 903	0.94
WATER VAPOR PERMEABILITY	ASTM E96 / CGSB 51.33 M89	Conforms Type I
RESISTANCE TO FUNGI & BACTERIA	ASTM C1338	DOES NOT PROMOTE GROWTH
BLEEDING & DELAMINATION	ASTM C 1224	NO BLEEDING OR DELAMINATION
PLIABILITY	ASTM C 1224	NO CRACKING OR DELAMINATION

### CUSTOMER SERVICE and SALES

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