

REFLECTIVE INSULATION

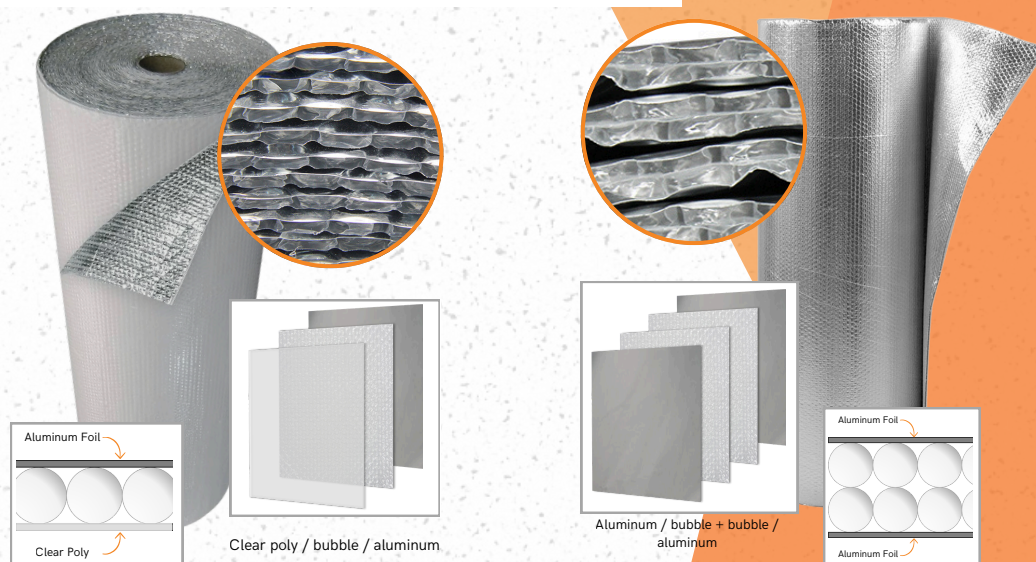


SINGLE BUBBLE
WRAP

DOUBLE BUBBLE
WRAP



REFLECTIVE INSULATION



ITEM - 13000

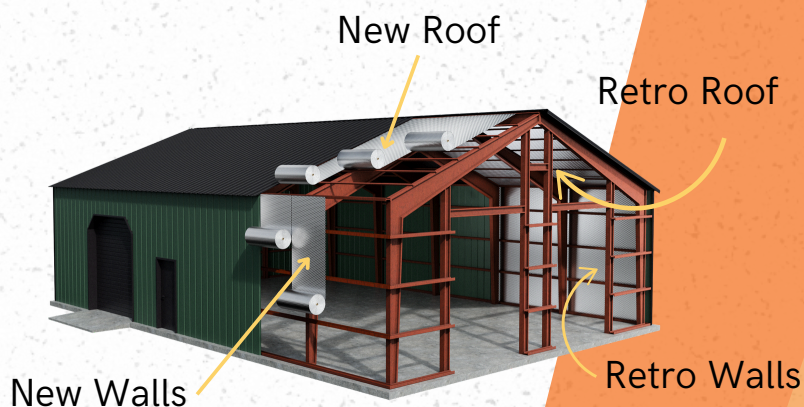
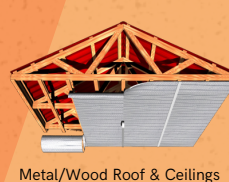
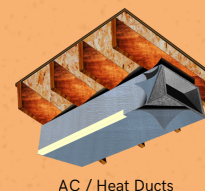
ITEM - 13001

Code	Product Name	Height	Length	Total Area	Durable	Ignitability Rating	Color	Reflectivity	Min. Temp. Range	Max. Temp. Range	Packaging	MOQ
13000	Single Bubble	1.2 m (4 ft)	35 m (125 feet)	42 sqm (500 sft)	Highly	Excellent	White / silver	97% - 99.9%	-50°C (-58°F)	80°C (176°F)	1 roll	25 rolls
13001	Double Bubble	1.2 m (4 ft)	30 m (100 feet)	36 sqm (400 sft)	Highly	Excellent	Silver	97% - 99.9%	-50°C (-58°F)	80°C (176°F)	1 roll	25 rolls

Code Section	Applicable Code/Section	Test Method	Requirement
Surface Temperature (Section 604.2)	International Mechanical Code	ASTM	Ducts that operate at temperatures exceeding 120°F (49°C) shall have sufficient thermal insulation to limit the exposed surface temperature to 120°F (49°C).
Coverings and Linings (Section 604.3)	International Mechanical Code	ASTM E 84	Maximum Flame Spread and Smoke Developed Ratings of 25/50. Duct coverings and linings shall not flame, glow, smolder or smoke when to a temperature of 250°F (121°C).
Surface Burning	International Mechanical Code	ASTM C411	Foam plastic shall conform to the requirements of Section 604 and the International Building Code. This criteria applies only to duct insulation materials that are foam plastic (bubble pack materials are not foam plastic).
Temperature Exposure (Section 604.7)	International Mechanical Code	UL181	Duct insulations must be labeled at intervals not greater than 36 inches (914 mm) with the name of the manufacturer, R-value, flame spread and smoke developed ratings.
Identification (Section 604.13)	International Mechanical Code	UL181	Insulations used as internal insulation (duct liner) and exposed to the airstream in ducts shall be shown to be durable when tested in accordance with UL181.

Product Name	Single Bubble	Double Bubble
Fiber	Free	Free
Clean & Safe	Yes	Yes
Irritation Insulation	No	No
Water Barrier	Yes	Yes
Hail Resistant	Yes	Yes
Anti-tear Surface	Yes	Yes
Anti-fungal	Yes	Yes
Anti-bacterial	Yes	Yes
Resist rodent & insect nesting	Yes	Yes
Material	Aluminum and polyethylene bubble	Aluminum and polyethylene bubble
Structure	White poly / bubble / aluminum	aluminum / bubble + bubble / aluminum

Applications: Industrial, commercial or residential constructions

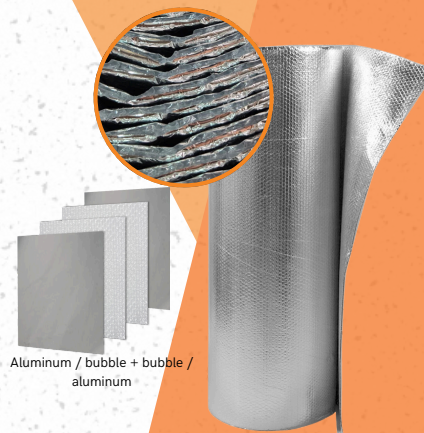


REFLECTIVE INSULATION



ITEM - 13003

ITEM - 13002



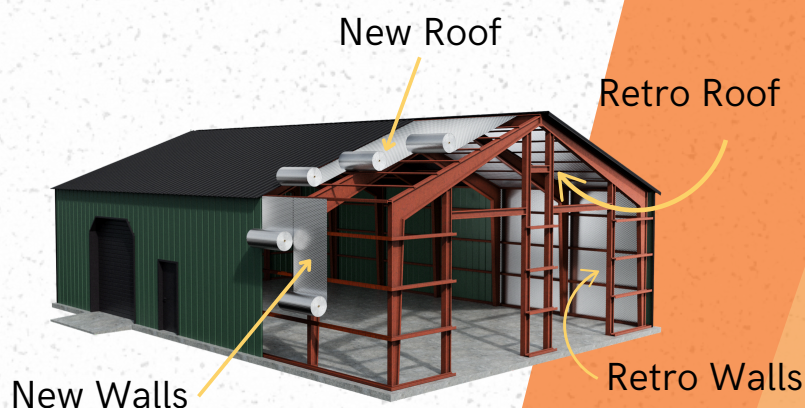
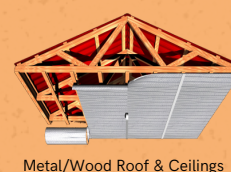
ITEM - 13004

Code	Product Name	Height	Length	Total Area	Durable	Ignitability Rating	Color	Reflectivity	Min. Temp. Range	Max. Temp. Range	Packaging	MOQ
13002	Single Bubble	1.2 m (4 ft)	35 m (125 ft)	45 sqm (500 sft)	Highly	Class A / Class 1	White / Silver	Up to 97%	-60°F (-51°C)	180°F (82°C)	1 roll	25 rolls
13003	Single Bubble	1.8 m (6 ft)	35 m (125 ft)	45 sqm (750 sft)	Highly	Class A / Class 1	White / Silver	Up to 97%	-60°F (-51°C)	180°F (82°C)	1 roll	26 rolls
13004	Double Bubble	1.2 m (4 ft)	30 m (100 ft)	36 sqm (400 sft)	Highly	Class A / Class 1	Silver	Up to 97%	-60°F (-51°C)	180°F (82°C)	1 roll	27 rolls

Code Section	Applicable Code/Section	Test Method	Requirement
Contact Temperature Range	Product Specification	—	-60°F to 180°F (-51°C to 82°C)
Water Vapor Transmission	Water Vapor	ASTM E96	.02 perms
Puncture Resistance	Physical Property	—	60 lbs/in
Pliability	Physical Property	—	No Cracking
Linear Shrinkage	Physical Property	—	None
Mold and Mildew	Surface / Durability	—	No Growth
Flame Spread	Surface Burning	ASTM E84-08	0
Smoke Development	Surface Burning	ASTM E84-08	Single Bubble WF: 20 Double Bubble DF: 40
Fire Rating	Surface Burning	ASTM E84-08	Class A / Class 1

Product Name	Single Bubble	Double Bubble
Fiber	No	No
Clean & Safe	ASTM tested	ASTM tested
Irritation Insulation	No	No
Water Barrier	Yes	Yes
Hail Resistant	Not specified	Not specified
Anti-tear Surface	Not specified	Not specified
Anti-fungal	Yes	Yes
Anti-bacterial	Not specified	Not specified
Resist rodent & insect nesting	Not specified	Not specified
Material	White polyethylene + barrier bubble + reflective metalized film	Reflective metalized film + barrier bubble + barrier bubble + reflective metalized film
Structure	One layer of 1/8" barrier bubble film laminated between one layer of reflective metalized film and one layer of white polyethylene.	Two layers of 1/8" barrier bubble film laminated between two layers of reflective metalized film.

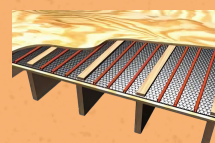
Applications: Industrial, commercial or residential constructions



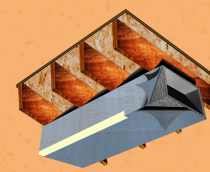
Metal/Wood Roof & Ceilings



Metal/Wood Walls



Radiant Floors



AC / Heat Ducts



WHY BENNER?

When it comes to high-performance insulation and building solutions, Benner Products is committed to providing high-quality insulation products proudly made in the USA. We distribute reliable, high-performance insulation solutions designed to meet the needs of contractors, builders, and commercial projects.

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BENNER PRODUCTS



When it comes to high-performance insulation and building supply materials, Benner Products stands apart as a trusted distributor of quality insulation solutions made in the USA. Here's why leading contractors, builders, and industrial clients choose Benner Products:

Product	Reflective Barrier – Foil / Foil	Reflective Barrier – Foil / White
Description	Double-sided reflective metallized film with polyethylene woven reinforcement.	Single-sided reflective metallized film. Other side white PE, with polyethylene woven reinforcement and UV.
Standard Roll Sizes	4' x 100'	4' x 125' / 6' x 125'
Weight per Roll	14 lbs. (500 sq ft) / 28 lbs. (1000 sq ft)	12.80 lbs. (500 sq ft) / 25.60 lbs. (1000 sq ft)
Thickness	125 microns	125 microns
Water Vapor Transmission	Unit: g/100 in ² /24 hrs% Value: 5.6 Test Method: ASTM E96 Proc A	Unit: g/100 in ² /24 hrs Value: 5.6 Test Method: ASTM E96 Proc A
Permeability	.040 Perms (S) / .040 Perms (P) ASTM E96-05	.046 Perms (S) / .046 Perms (P) ASTM E96-05
Puncture Strength	60 lbs./inch	60 lbs./inch
Tensile / Tear Strength	Length: 148.50 Pounds Force Width: 138.29 Pounds Force ASTM D2261	Length: 127.33 Pounds Force Width: 92.17 Pounds Force ASTM D2261
Shrinkage	None	None
Pliability	70°F ±5°F & 50±5% Relative Humidity No Cracking or Delamination ASTM C1224	70°F ±5°F & 50±5% Relative Humidity No Cracking or Delamination ASTM C1224
Adhesive Performance	180°F ±5°F & 50% Relative Humidity No Bleeding or Delamination ASTM C1313-	No Bleeding or Delamination ASTM C1313-05 Class A / Class 1
Flame Spread & Smoke	Class A / Class 1 0 Flame Spread, 5 Smoke Development ASTM Method E84-10	Class A / Class 1 0 Flame Spread 5 Smoke Development ASTM Method E84-10
Resistance to Fungi	Pass – No Growth ASTM C1338-08	Pass – No Growth ASTM C1338-08
Total Hemispherical Emittance	Emissivity: 0.05 Reflectivity: 95% ASTM C1371-04a	Emissivity: 0.05 Reflectivity: 95% ASTM C1371-04a
Thermal Resistance Values**	Heat Flow Down: R-7.57 Heat Flow Up: R-3.67 Heat Flow Horizontal: R-5.04	Heat Flow Down: R-7.95 Heat Flow Up: R-4.05 Heat Flow Horizontal: R-5.42