



Staple Tab, Square Edge, or Tape Tab



Specification Sheet

Fi-Foil's RBI Shield™ (Reflective Bubble Insulation) is a multipurpose insulation for residential, commercial, and agricultural applications in roofs, floors, and walls. RBI Shield™ is available in both single and double bubble versions. Standard widths are 16", 24", 48", 66" and 72" with 96" available through special order. Rolls are 125' in length. RBI Shield™ is also available in square edge, staple tab, and with an integrated tape tab to eliminate taping the seams. RBI Shield™ contains anti-oxidants that reduce the impact of harmful ultraviolet radiation and oxidation. RBI Shield™ has a class A flame and smoke development rating. The product also serves as a vapor retarder .

How Reflective Insulation Works

Heat is transferred by three methods, conduction, convection, and radiation. Most Insulating products resist heat transfer by forming small air or gas pockets between layers of building materials such as fiberglass, recycled paper, or foam. The small spaces restrict air movement, thereby reducing heat flow by convection. Reflective insulation functions by forming these dead air spaces with layers of paper, plastic, and aluminum. In addition to reducing heat flow by convection, the high reflectivity and low emissivity of each reflective layer has the added benefit of blocking up to 94% of the radiant energy, so radiation heat transfer is virtually eliminated.

Reflective Bubble Insulation

Product Information

Width of roll	16"	24"	48"	54"	66"	72"	96"
Coverage SqFt	166	250	500	563	688	750	1000
Double Bubble Roll Diameter - 22"							
Single Bubble Roll Diameter - 16"							
Roll Lineal Footage - 125'							
R-Values and Weights on Reverse Side							

Test Data

ASTM E 96-05	- Water Vapor Transmission	SB	.01	Reflective	.04	} Perms
		DB	.12		.02	
ASTM C 1258-02	- Elevated Temperature & Humidity	SB	-		.37	} Perms
		DB	.42		.27	
ASTM D 3310-00	- Corrosiveness	No Cracking or Pitting				
ASTM C 1224-03, Section 9.5.2	- Pliability.....	No Cracking or Delamination				
ASTM C 1224-03, Section 9.5.1	- Bleeding & Delamination . .	No Bleeding or Delamination				
ASTM C 1371-04A	- Emmisivity	0.06				
ASTM E 903	- Reflectivity.....	94%				
ASTM C 411	- Hot Surface Performance	-50 °F to 250 °F				
ASTM G 155	- UV Exposure	90% Retention After 4,000 Hrs.				
ASTM E 84-08/2599	- Flammability	Class A				
NFPA 286	- Fire Rating - Full Room.....	Class A				
Reflective / Reflective	Flame Spread	Single Bubble	0	Double Bubble	0	
	Smoke Development		<50		<50	
Reflective / Poly	Flame Spread		0		0	
	Smoke Development		<50		<50	
ASTM D 638-10	- Tensile Strength MD		265.4 lb _f /IN ²		94.3 lb _f /IN ²	
	- Tensile Strength TD		234.4 lb _f /IN ²		93.0 lb _f /IN ²	
ASTM D 2261-13	- Tear Strength MD		1.91 lb _f /IN ²		5.0 lb _f /IN ²	
	- Tear Strength TD		2.23 lb _f /IN ²		6.0 lb _f /IN ²	
ASTM C 165-07	- Compression Strength @25%		.28 lb _f /IN ²		.53 lb _f /IN ²	
ASTM C 1338-08	- Resistance to Growth of Fungi	Pass				

Read This Before You Buy

The label shows the R-value of this insulation. R means resistance to heat flow. The higher the R-value, the greater the insulating power. Compare insulation R-values before you buy. There are other factors to consider. The amount of insulation need depends mainly on the climate you live in. Also, your fuel savings from the insulation will depend upon the climate, the type and size of your house, the amount of insulation already in your house, your fuel use patterns, and your family size. If you buy too much insulation, it will cost you more than what you will save on fuel. To get the marked R-value, it is essential that this insulation be installed properly.



COMPLIANCE AND APPROVALS

Meets ASTM C-1224, Standard Specification of Reflective Insulation
IAPMO UNIFORM ES Evaluation Report #0291 - Issued: 2015



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Products Weights Chart					
		WHITE or BLACK		REFLECTIVE	
Width	Type	Square Edge	Staple Tab Tape Tab	Square Edge	Staple Tab Tape Tab
16"	Single Bubble	6	8	5	7
	Double Bubble	8	10	9	11
24"	Single Bubble	8	11	9	11
	Double Bubble	12	15	12	14
48"	Single Bubble	17	23	17	21
	Double Bubble	23	30	24	28
54"	Single Bubble	19	25	19	24
	Double Bubble	27	33	27	31
66"	Single Bubble	23	30	23	28
	Double Bubble	32	38	33	37
72"	Single Bubble	25	32	25	30
	Double Bubble	35	42	36	40
96"	Single Bubble	34	46	34	42
	Double Bubble	48	60	48	56

R-Values							
For Bubble Type and Methods of Installation							
	Heat Flow Down		Heat Flow Up		Heat Flow Horizontal		
Draped over Purlins with 1" airspace	Double	Single	Double	Single	Double	Single	
	Reflective/Reflective	R-10	R-10	R-4.1	R-4.0	R5.5	R-5.0
	Reflective/Poly	R-6.5	R-6.0	R-3.4	R-3.2	R-4.1	R-3.9
Attached to the bottom of a 6" or 8" Purlin	Double	Single	Double	Single	Double	Single	
	Reflective/Reflective	R-16	R-16	R-4.7	R-4.2	R-5.4	R-4.9
	Reflective/Poly	R-12	R-12	R-4.0	R-3.5	R-4.4	R-3.9

R-values include lower air film. Testing and calculations in accordance with ASTM C 236, ASTM STP 1116, and ASH REA Book of Fundamentals and National Bureau of Standards.

CAUTION: Do not install this insulation in an area where it will or could be exposed to exterior elements including, but not limited to direct sunlight (i.e., including under skylights), water, moisture, and/or intense heat. Do not install this insulation in open-air buildings (i.e., a structure having no side walls or partial side walls) - the building should have four sides. The insulation can be installed in buildings with operable garage doors as an exception - buildings with operable garage doors, other doors, or windows, provided that the building is otherwise enclosed and the insulation is not exposed to direct sunlight, water, moisture, and/or intense heat. Should you have any questions about the application, please contact our factory at 1-800-448-3401.

