



Metal Building Insulation System

The RetroShield® System

providing comfort, energy efficiency, and appeal for metal buildings

- Saves Energy
- Easy and Quick Installation
- Works with All Types of Metal Framing
- Attractive Finished Appearance (White or Reflective)
- Strong Mechanical Connection without Glue or Support Cables
- Does Not Absorb Moisture like Standard Mass Insulation

The RetroShield® System is the perfect solution for insulating both new and existing metal buildings. This cost effective patented system combines Fi-Foil's strong and durable Reflective Bubble Insulation and our innovative Clip & Pin components. For a comfortable, energy efficient building, insist on...



Installation without Interruption.



BEFORE



AFTER

Our patented Clip & Pin System is a one step process, unlike other methods.

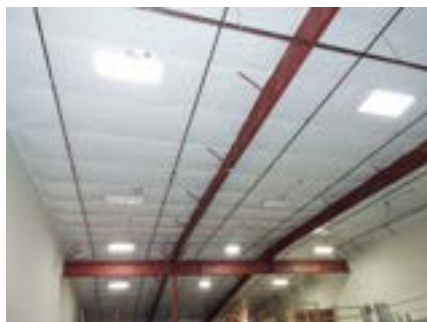


Locking Washers

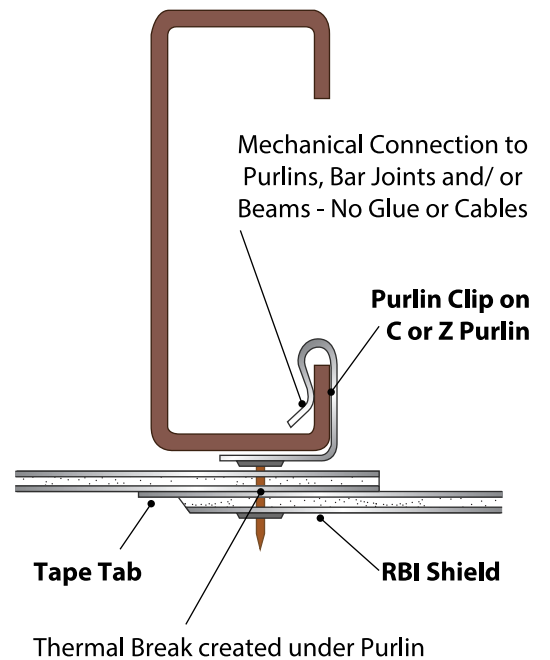


The Purlin and Beam Clips are two of the most common clips used. Other clips are available depending on the needs of your specific building.

PATENT #6,324,808 B1 #6,385,935 B2



Seams are mechanically secured with the RetroShield® System's Clip & Pin and sealed with the integrated tape tab.





Metal Building Insulation

Why RetroShield® System?

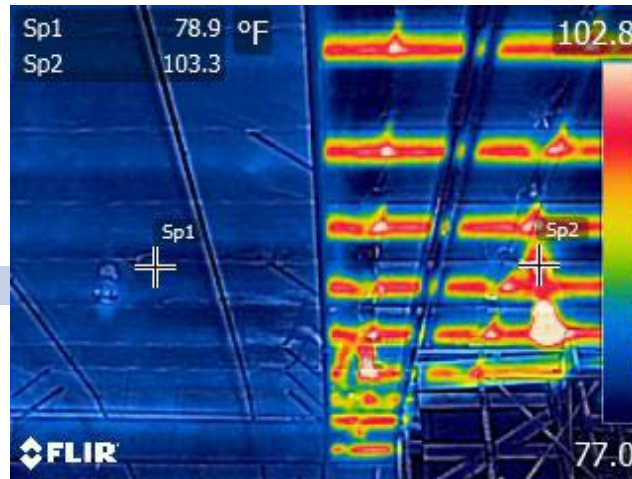
All buildings need insulation, especially metal buildings. Controlling heat loss in the winter and heat gain in the summer, and finding a cost effective solution that works is a challenge for both new and existing buildings. The **RetroShield® System** is the answer.



“The installation was quick- without constant interruptions. One pass and it was done!”



How Does it Work?



The steel purlins in your building have no thermal resistance or 0 R-value. As you can see with our infrared photos, even on a mild partly cloudy day, the heat transfer from your structure through the purlins can be excessive. With the RetroShield system you can enhance comfort, save energy while improving the look of your building.



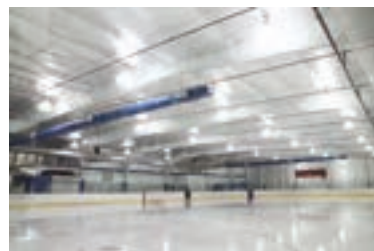
The RetroShield® System offers continuous insulation and exceptional thermal performance by using the combination of RBI Shield™ or Reflective Bubble Insulation and patented Clip & Pin components. The system that is installed at the bottom of the roof purlins and beams and the inside of the wall side purlins and beams. By covering the purlins and the entire roof and wall surface, the RetroShield® system significantly improves the building’s thermal performance. In fact, it will reduce radiant heat transfer, the most dominant form of heat transfer, as much as 97%. Most building owners are fully satisfied with the thermal performance of the system alone; however, the strength of the design also allows it to be backfilled with additional mass insulation for specific R-value requirements.

Installation is fast and mechanically sound. Our patented RetroShield® System is a one step process, unlike other insulation systems that require three passes, inconveniencing the building owner. The installed system is mechanically attached to the building’s frame without glue or cables. This ensures long-term stability and provides an appearance that can be used as the finished ceiling.

RBI Shield Reflective Insulation



RBI Shield™ double bubble reflective insulation reduces convective and conductive heat transfer by trapping air in small cells or air bubbles. The bubbles are formed with an industrial grade plastic that includes a UV inhibitors and anti-oxidation agents. Two layers of air bubbles are sandwiched between a layer of white polyethylene facing and an aluminum surface or two layers of aluminum surfaces for maximum thermal performance. RBI Shield™ also has a low vapor transmission rate and thus, is an excellent vapor retarder. Sound transmission is also reduced. One edge includes an integrated tape tab for sealing seams. Widths up to 96" wide are available to meet your building design.



Most metal buildings are designed with purlins 5' on center. The standard RetroShield® System of one 66" wide roll of insulation and one box of clips provides up to 625 square feet of coverage.

R-Values and Method of Installation

RBI Shield™ -Reflective Bubble Insulation attached to the bottom of a 6" or 8" purlin
 Reflective Face RBI.....R-16
 White Face RBI.....R-12

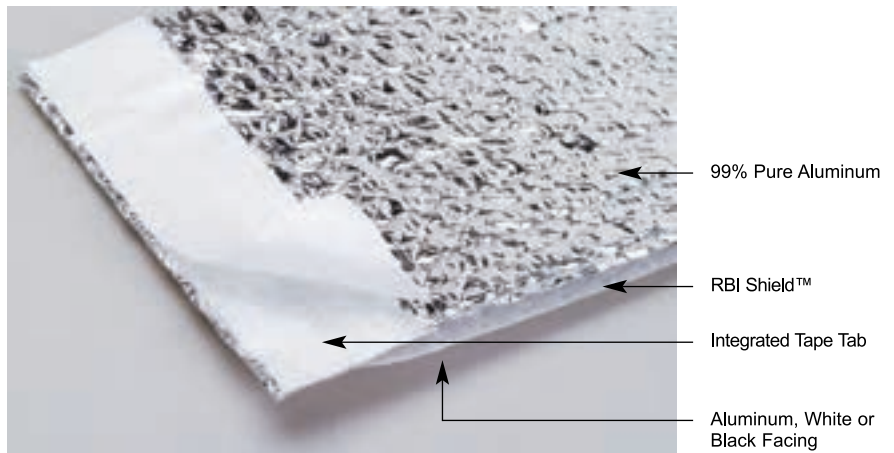
R-values are based on heat flow down and include lower air film.
 Tested in accordance with -
 ASTM C1224.

Achieving Higher R-Values

The RetroShield® System has been designed to allow for back loading standard mass insulation. Consult the factory for R-value calculations.

USE RESTRICTIONS:

1. Installation in exposed applications are not recommended.
2. Pressure washing or washing with chlorine-based chemicals are not recommended.



FiFoil.com



PO Box 800, Auburndale, FL 33823
 (800) 448-3401 F: (863) 967-0137