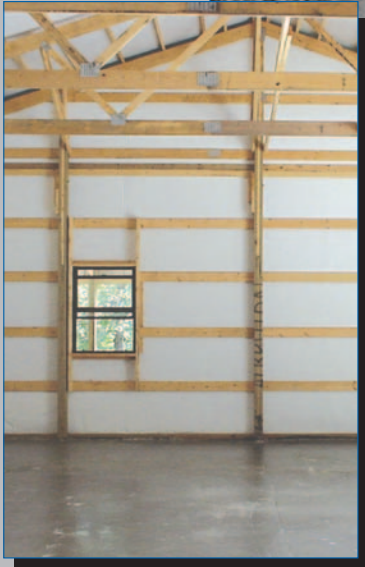




**GUARDIAN**  
BUILDING PRODUCTS

# **SOLAR<sup>TM</sup> GUARD**

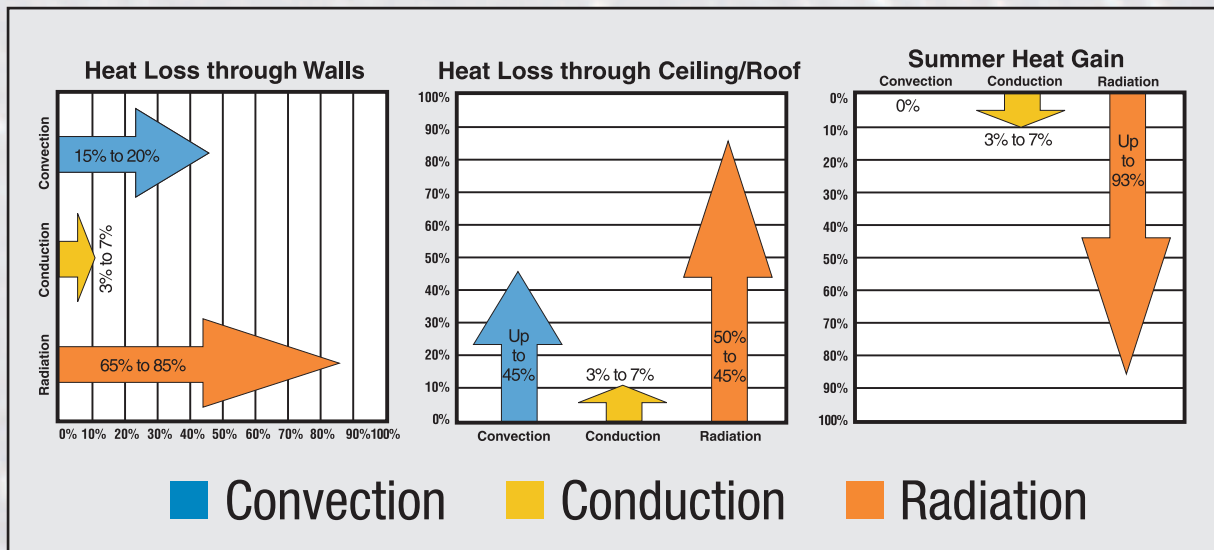
REFLECTIVE INSULATION



**THE FUTURE OF INSULATION**

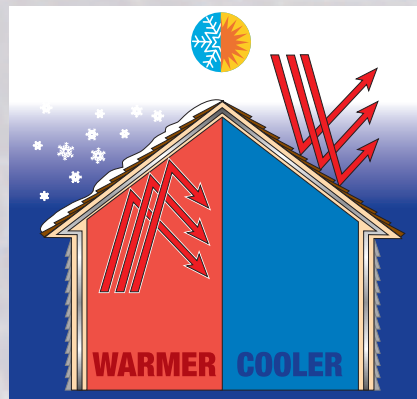
# Why You Should Use SOLARGUARD

Approximately 75% of total heat transfer in a building occurs through radiation. The foil in Solarguard can reflect 97% of radiant energy striking it. (See Chart)



## BENEFITS OF SOLARGUARD

- Reduces installation cost
- Costs less to ship and store
- Not effected by compression between purlins and roof sheets in metal and post frame buildings
- Bird and rodent resistant
- Ideal for residential applications both alone or in conjunction with fiberglass, for optimum total thermal performance

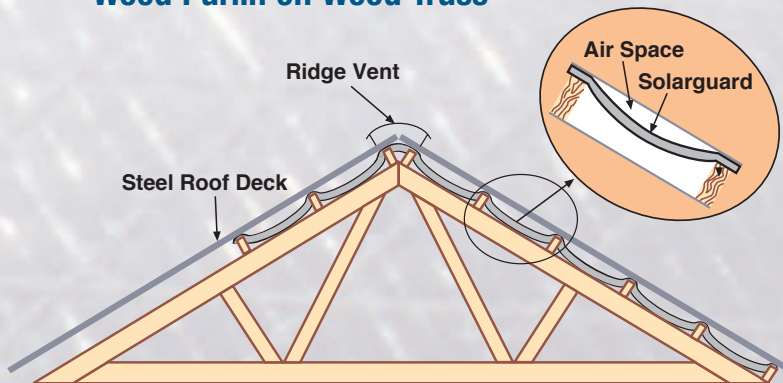


- Fits nicely between purlins and roof sheets
- No itchy fibers! Solarguard's high-performance fiberglass core is encapsulated
- Addresses all three modes of heat loss/gain: Radiation, Conduction and Convection
- Superior Flame/Smoke ratings
- Perfect for dozens of uses in residential construction

# Solarguard AGRICULTURAL



**Wood Purlin on Wood Truss**



Solarguard reduces heat gain and improves comfort. Solarguard can increase animal productivity and reduce animal mortality. Protect your investment, install Solarguard.



## HERE'S WHAT OUR CUSTOMERS SAY:

"It does a better job of insulating than a 3" fiberglass blanket with the ease of installing a 1/4" thick material."

John Ritland, Ritland Buildings, Ooltewah, TN

"Solarguard is much easier to install than faced fiberglass blanket and gives us great thermal performance."

Brian Keane, Keane Construction, Fort Gibson, OK

"The most useful product I've ever installed. I keep several rolls of it on each of my trucks for unexpected conditions."

Doug Bruell, North Coast Home Insulation, Cleveland, OH

"Solarguard takes up less space in our stores and is easier to ship. That saves both us and our customers money."

Clif Loveless, Metal Mart, Waxahachie, TX

"With its superior fire rating, Solarguard can be left exposed anywhere in a home. It's ideal for kneewall applications."

Steve Childs, Insulating Products, Inc., McKinney, TX

# Solarguard COMMERCIAL

## WHAT IS SOLARGUARD?

Solarguard high performance reflective insulation consists of a ¼" fiberglass core bonded to either two exterior layers of 99% pure aluminum or one layer of aluminum and one layer of durable white scrim-reinforced facing material.

**White**

**RFSK/Foil**

**Foil/Foil**



**Uses: Commercial/Agricultural**

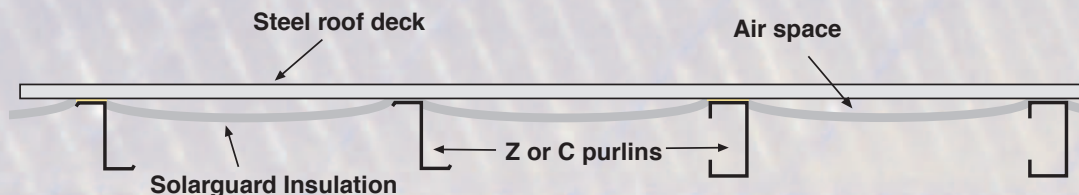
**Uses: Commercial/Agricultural**

**Uses: Residential**

Available Sizes:

Solarguard White/RFSK		Solarguard Foil/Foil	
48" x 102'	72" x 102'	16" x 50'	24" x 50'
48" x 125'	72" x 125'	20" x 50'	48" x 50'

## PRE-ENGINEERED STEEL BUILDING APPLICATION



# SOLARGUARD

## Thermal and Fire Performance Data

Only Solarguard reflective insulation has been tested to the nations' most stringent and most current Thermal and Fire standards. Reflective insulation products work. New test standards have been developed by the American Society of Testing Materials (ASTM) to properly evaluate the Thermal performance of this class of insulation products. When choosing a reflective insulation product you should carefully consider the following:

**Thermal Properties:** When testing insulation materials in a device called a calibrated hot box, a sample of the material is mounted and different temperatures are maintained on the two sides of the sample. The difference in temperature is referred to as the Delta ( $\Delta$ ) T. A smaller  $\Delta$  T will generally result in a higher R-value. The  $\Delta$  T used in testing is a critical piece of information that should be reported along with the R-value and test method. Most reflective insulation manufacturers report their R-values based on test results achieved under the ASTM C236 test standard and often fail to report the  $\Delta$  T. Often the exceptional R-values reported are based on only a 10 degree Fahrenheit  $\Delta$  T. The ASTM C236 test standard is outdated and may soon be discontinued by ASTM. ASTM C1363/C976 is more current. When testing to this standard a  $\Delta$  T of 30 degrees Fahrenheit or more is usually used. To properly evaluate the thermal performance of reflective insulation materials, only ASTM C1363/C976 test results, with a 30 degree Fahrenheit or greater  $\Delta$  T should be considered.

**Fire Properties:** Many other reflective insulation products claim a Class 1 rating per ASTM E84, however they must support their product with poultry wire when testing in order to achieve these results. While the ASTM E84 test standard allows the use of such support, when burned in an unsupported condition that is more typical of their installation in a metal, post frame or other type of building, some bubble-pack or foam core reflective insulation products generate a Flame Spread many times the 25 rating required to achieve a Class 1 rating. All Solarguard E84 test results reported herein were achieved without the use of additional support beneath the sample. Additionally, Solarguard passes the UL1715/UBC 26-3 Room Corner Wall Fire Test. Solarguard White and Solarguard Foil meet all requirements for reflective insulation as required by the 2000 International Building Code (IBC). When you specify a high performance reflective insulation product, insist on the safest product available today – Solarguard, by GBP Silvercote. A detailed specification for Solarguard can be downloaded from <http://www.silvercote.com/ProductDetail.asp?ProductID=56>.

SOLARGUARD WHITE		
Physical Properties	Test Method	Values
Flame Spread	ASTM E84	25
Smoke Developed	ASTM E84	25
Full Scale Corner Wall	UL 1715/UBC 26-3	PASS
Thermal Performance*	ASTM C1363/C976	Heat Flow Down R-10.3 Heat Flow Up R-7.6 Heat Flow Horizontal R-8.7
SOLARGUARD RFSK & FOIL		
Physical Properties	Test Method	Values
Flame Spread	ASTM E84	0 (RFSK) / 5 (FOIL)
Smoke Developed	ASTM E84	0 (RFSK) / 15 (FOIL)
Full Scale Corner Wall	UL 1715/UBC 26-3	PASS
Thermal Performance**	ASTM C1363/C976	Heat Flow Down R-11.6 Heat Flow Up R-8.3 Heat Flow Horizontal R-9.0
SOLARGUARD FOIL MASONRY WALL THERMAL PERFORMANCE TESTS***		
Furring Used	Test Method	Values
1x2 Wood 16" o.c.	ASTM C1363/C976	R-5.83
1x2 Wood 24" o.c.	ASTM C1363/C976	R-6.14
2x2 Wood 16" o.c.	ASTM C1363/C976	R-6.56
7/8" Metal Hat Channel 16" o.c.	ASTM C1363/C976	R-5.44

(\*) System R-Values per ASTM C976/C1363, Air to Air with a 30 degree Fahrenheit temperature differential. These tests were conducted using a Calibrated Hot Box apparatus. The reflective insulation tested was .25" thick fiber glass insulation with foil facing on one side and a white scrim-reinforced facing on the other side. The test sample was installed in the middle of a 2 x 4 wood stud cavity, the wood framing was 16" o.c. with 3/4" thick plywood on each side. All R-Values are in hr-sq. ft.-degree F/BTU.

(\*\*) System R-Values per ASTM C976/C1363, Air to Air with a 30 degree Fahrenheit temperature differential. These tests were conducted using a Calibrated Hot Box apparatus. The reflective insulation tested was .25" thick fiber glass insulation with foil facing on one side and a reinforced foil scrim facing on the other side. The test sample was installed in the middle of a 2 x 4 wood stud cavity, the wood framing was 16" o.c. with 3/4" thick plywood on each side. All R-Values are in hr-sq. ft.-degree F/BTU.

(\*\*\*) System R-value per ASTM C1363/C976, Air to Air with a 50 degree Fahrenheit temperature differential. These tests were conducted using a calibrated hot box apparatus. All tests measure in the Horizontal Heat Flow direction. The reflective insulation tested was .25" thick fiberglass insulation with foil facing on both sides. The test sample was installed between a 3/8" plywood exterior sheathing (used to simulate a 4" thick cinder block wall) between the furring material defined in the table above. A 1/2" gypsum wall board was applied to the other side of the test sample.

### AVAILABLE COAST TO COAST!

Solarguard Reflective Insulation is made under U.S. Patent #6,797,356. Other Patent Pending.



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