

YOUR QUESTIONS ANSWERED BY THE EXPERTS

Q. Will dust collecting on the top of the product hurt its effectiveness over a period of time?

A. "Thin layers of dust readily visible to the eye do not cause very serious lowering in the reflecting power. The appearance of the surface is not a reliable guide as to its reflectivity for radiant heat, and foil which appears dark or discolored may have lost little in insulating value "if" the surface film is thin" **THE NATIONAL BUREAU OF STANDARDS, U. S. DEPT. OF COMMERCE, LETTER CIRCULAR - 535.**

Q. Will the aluminum corrode and lose its effectiveness?

A. "Hundreds of samples of aluminum foil have been stored in the laboratory for various periods of time up to 10 years with no visible signs of deterioration." **AMERICAN SOCIETY OF HEATING & AIR CONDITIONING ENGINEERS' JOURNAL SECTION.**

A. Aluminum is highly Resistant to the effect of corrosion...Aluminum is constantly being used where it is exposed to weather, salt spray and other conditions which would adversely affect most metals." **THE UNITED STATES RUBBER CO. BOOKLET, "SERVING YOU THROUGH SCIENCE." PAGE 5.**

Q. Do I need a radiant barrier if my home is already well insulated?

A. SUMMER

"A radiant barrier system can stop 97 percent of the thermal radiation across an attic space. If it is not stopped, that radiant energy would be absorbed by the ceiling insulation and eventually be transferred to the living space below." **"THE SOLAR COLLECTOR", QUARTERLY NEWSLETTER OF THE FLORIDA SOLAR ENERGY CENTER.**

"PROGRESSIVE ARCHITECTURE, NOV. 1949, PAGE 76", states, "the heat storage capacity of reflective insulation is low. As a result, it does not store heat during summer days, only to pass it on down into the rooms of the house from the attic at night when coolness is most apt to be desired from the point of view of sleeping comfort."

A. WINTER

"CONCLUSIONS:

Reflective foil retrofitted to fiberglass insulated...buildings is demonstrably effective in reducing heat loss...Insulation of foil in a non insulated building would show even more pronounced reduction in heat loss." **"EFFECTS OF REFLECTIVE FOIL ON HEAT LOSS IN ATTIC FLOORS AND METAL BUILDING INSTALLATIONS" NORTHEASTERN ILLINOIS UNIVERSITY, PROF. CHARLES SHABICA, MAY 20, 1986.**

Q. Is a two sided radiant barrier more effective than a one-sided product?

A. THE NATIONAL BUREAU OF STANDARDS IN ITS BOOKLET BM552, "EFFECT OF CEILING INSULATION UPON SUMMER COMFORT." lists 2 layers of aluminum foil as the most effective insulation in protecting the ceiling against summer heat.

A. DENNIS O'NEAL, TEXAS A & M UNIVERSITY, "AN EVALUATION OF PLACEMENT OF RADIANT BARRIERS AND THEIR EFFECTIVENESS IN REDUCING HEAT TRANSFER IN ATTICS." This study shows, a two sided radiant barrier reduced almost twice as much heat flow into the home as a one sided radiant barrier over R-19 insulation.

Q. What is the "R" value of a radiant barrier?

A. "R-Value is a measurement of insulation effectiveness (a measurement of resistance to heat flow by conduction and convection for a given thickness). Because radiant barriers reflect thermal energy, and their effectiveness is based on surface emissivity, there is no fixed R-Value for the material..." **"SOLAR DESIGN JOURNAL NEWS", TECHNICAL COMMITTEE, SCHOOL OF ARCHITECTURE, LSU**