

## Insul-Tarp®: Manufacturer Claim VS Reality

By Scott Doyle

Recently, one of our Rater Partners sent me this e-mail question:

*"I'm doing a rating for a builder who used Insul-Tarp® under his slab. You and I both know this is not an effective insulation under a slab and I've tried to explain to him why it doesn't work. The spec sheet claims R-5.6 for 3/8" and R-10 for 1/2". I don't buy those numbers but I'm not sure how to model it in REM/Rate™. I believe they did a single 1/2" layer. What advice can you offer as to a reasonable R-value, or should I use the manufacturer's dictated effective R-value?"*

Bogus claims for under-slab radiant barriers have been cropping up for years, and will probably continue in the future under a new trade name. I decided to research this product—with a healthy dose of skepticism—beginning on the manufacturer's website. As expected, in the normal application of the Insul-Tarp®, it is inevitable that the aluminum coating, which was supposed to be acting as a radiant barrier, would be in direct contact with the underlying concrete. This is because there is no (practical) way to leave an air-space between it and the underside of the slab. Without an air-space in between the radiant barrier and the warm surface, heat energy will not radiate back to the slab; instead, heat energy will move via conduction through the aluminum barrier—and aluminum conducts heat better than just about any other material we put in our buildings. Interestingly, all of the supporting documentation that the manufacturers had on their website refers to studies done on radiant barriers in **attics**—probably because those are conditions in which radiant barriers can actually be effective.

Next, I ran a general search for the product. A number of articles on the bogus claims of radiant barriers as under-slab insulation appeared. An article on the Federal Trade Commission's website grabbed my attention (<http://www.ftc.gov/opa/2009/03/rvalue.shtml>).

The following is an excerpt from that article:

*"Meyer Enterprises. According to the FTC, these defendants sold an insulation product called Insul-Tarp® between June 2007 and October 2008. The product, a thin blanket to be installed under concrete slab floors, was marketed with print and online materials that made deceptive claims about its supposed R-value. For example, the defendants claimed Insul-Tarp's® R-value is 7.54, but in reality Insul-Tarp's® R-value could not be more than 2. The FTC's complaint charges the defendants with violating the FTC Act and the R-value Rule by failing to base their*

*product's R-value claims on required testing procedures, failing to provide consumers with the required R-value disclosures, and failing correctly to pair statements about the purported R-value and thickness of their product needed to achieve the claimed R-value.*

*The court order settling the charges prohibits the defendants from making any energy-related efficacy claims unless they are true and substantiated. It also prohibits violations of the R-value Rule, contains standard monitoring and record-keeping terms to ensure the defendants' compliance, and imposes a civil penalty of \$155,000."*

The lesson is this: **manufacturers—even those with great products—tend to over-state the effectiveness of their products.** As a rater, perform your due diligence. Always do your best to refer to industry-accepted third-party tests found in product directories and stay away from manufacturer claims. When in doubt, contact your Provider for further guidance. Remember, if it sounds too good to be true, it probably is. Here are some good third-party sites you will want to add to your favorites if you haven't already:

[http://www.ahrinet.org/Content/GAMAnetRedirect\\_920.aspx](http://www.ahrinet.org/Content/GAMAnetRedirect_920.aspx)

GAMA merged in 2008 with ARI to form the Air Conditioning, Heating and Refrigeration Institute. This site now contains product directories for gas boilers, furnaces, and hot water heaters as well as heat pumps and air conditioners.

<http://hvi.org/>

Home Ventilating Institute contains product directories for whole house and spot ventilation fans, heat recovery ventilators, and energy recovery ventilators.

<http://www.nfrc.org/>

National Fenestration Council contains certified product directory for windows, doors, and skylights. However, you should still verify the presence of low-e coatings with a low-e detector and check the NRFC stickers on the glazing during the pre-drywall inspection.

<http://www.ahridirectory.org/ahriDirectory/pages/home.aspx>

Air-Conditioning, Heating and Refrigeration Institute's product directory.