



Faced Polyisocyanurate Roof Insulation

There has been extensive debate regarding the long-term or "in-service" Thermal Resistance value of polyisocyanurate insulations. Although it is widely recognized that those products currently available experience a reduction in thermal resistance over time, the extent of this reduction continues to be a matter of discussion. Adding to the confusion is the varying conditioning procedures used by the industry to determine the "aged" RSI values.

Both the National Research Council of Canada, and the Oak Ridge National Laboratories of the US have been working on the development of ASTM Test Method C-1303 aimed at providing a standard procedure for determining the design (aged) thermal resistance values for these and other types of gas filled insulations. It is difficult, however, to predict how long before the standard is widely accepted.

Presently, CRCA has been notified by the Polyisocyanurate Insulation Manufacturers Association (PIMA), that until such time as this new standard is put in place, PIMA recommends the use of ASTM Standard C-1289-95 to determine the thermal resistance of polyisocyanurate foam. Furthermore, PIMA has committed that all member manufacturers will use ASTM C-1289-95 to determine the thermal resistance of their products, and market their products accordingly in Canada as of January 1, 1997.

In the interim, CRCA active members are cautioned against quoting "aged" or design (long-term) RSI values on projects. It is the responsibility of the designer to determine which values and what data should be used for the selection of any given product. **The contractors should "always" base their tender on thickness of the product(s) as specified by the design authority to avoid any potential liability.**

Where the contractor is required to make a determination regarding a material's long-term thermal resistance, he or she should reference the manufacturer's literature or the Canadian Construction Materials Centre (NRC-CNRC) Registry of Product Evaluations, published by the Institute for Research in Construction, for listings on polyisocyanurate foam insulations.

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