



July 19, 2011

RE: Variable Thickness of Spray Foam Insulation

An uneven, undulating surface and thickness variations are common in the spray foam industry as both open and closed cell spray foam insulations expand many times their liquid volume to fill cracks, gaps and voids to provide an insulation and air seal in a single application.

Based on their respective expansion rates, typical thickness variations for spray foam insulation are:

- ½” to 1” for open cell spray foam
- And up to ½” for closed cell spray foam

When necessary these materials can be trimmed to accommodate application of a finish material such as gypsum.

R-value for closed-cell foam is not linear, so average R-value should be determined by taking several thickness measurements, identify the R-value for each thickness from an R-value table (available in the ES report) and average these R-values.

Average R-value for open-cell spray foam can be determined using the same method as described above, or because open-cell foam R-value is linear, the measured thickness at multiple points can be averaged, then multiply the average thickness in inches by the R-value per inch of the product.

Sincerely,

A handwritten signature in black ink that reads 'Robert Naini'.

Robert Naini
Director of Engineering
DEMILEC (USA) LLC®