NU-WOOL COMPANY INC.

Technical Services

What you need to know about R-values

"Effective R-Values"

R-Value* is a measure of how well a product resists the flow of heat or cold through it. R-Value is determined by a laboratory test in which an insulation material is sandwiched between a cool and warm surface. The ability of the material to resist temperature changes results in an R-Value for that material. The purpose of R-Values is to allow consumers to compare the relative R-Values of different insulation products. Unfortunately, R-Values do not take in to account air movement and extreme temperature conditions.

The bid attached to this fact sheet contains R-Values determined as described above. The bid also contains "Effective R-Values," which are based upon the real-world performance of the insulation. While "Effective R-Values" cannot be measured reliably in a laboratory, they are based on over 30 years of actual performance of houses insulated with Nu-Wool Premium Cellulose Insulation. In fact, Nu-Wool Co., Inc. has guaranteed the energy performance of homes since 1987. In order to guarantee the actual operating cost of homes under the guarantee program, key information from each home is entered into a computer program that calculates energy use.

In order for the computer program to accurately reflect the increased performance of the Nu-Wool WALLSEAL System, "Effective R-Values" are used for the calculations. Using stated R-Values would not show the improvement the insulation makes in decreased air infiltration and the resulting decrease in energy use. Since 1987 Nu-Wool Co., Inc. has continually "tuned" the R-Value numbers to accurately reflect the actual performance of the insulation. Nu-Wool Co., Inc. currently uses an "Effective R-Value" of **R-17** for the nominal four-inch wall and an "Effective R-Value" of **R-25** for the six-inch wall. These numbers represent many years of actual energy costs for thousands of homes. While Nu-Wool Co., Inc. believes "Effective R-Values" are useful for comparative purposes, it would be inaccurate to say that "Effective R-Values" are the same as stated R-Values.

If you have any questions concerning "Effective R-Values" and how they are used to calculate energy costs, contact the Technical Services Department at Nu-Wool Co., Inc. at 1-800-748-0128, or email at info@nuwool.com.

Thickness	R-Value	"Effective R-Value"
2x4 Wall	13.3	17
2x6 Wall	21.0	25

*R-Value testing is regulated by the Federal Trade Commission. The use of R-Value tests allows the consumer to make choices based on the relative values for different products.

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