

WHICH INSULATION SHOULD I USE?

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There are so many different insulating materials that it is quite confusing. I have tried to pull together information on the most common types from the manufacturers, the critics, the contractors and the researchers. Usually this information seemed to me to be either too simplified or too technical. I couldn't figure out how to avoid either extreme so I have given you both: a simplified overview in the accompanying table followed by a detailed discussion of each material. (I like Baked Alaska better than luke-warm porridge.)

I have tried to list the commonly accepted applications for each type of insulation -- but these are certainly not the only possibilities. A special note must be made with respect to the use of loose-fill insulation inside walls: Natural Resources Canada approves of this use and used to finance it with their grant programs while the CMHC does not accept it for use in walls for fear it will get wet and stay wet. (search keyword "walls" for the title "CONFLICT: USE OR DON'T USE BLOWN-IN LOOSE FILL INSULATION INSIDE HOLLOW WALLS.")

The RSI, R, and cost values given are approximate, as products vary from one manufacturer to another. They will however, give you a good basis from which to compare materials. In fact you should consider the cost figures as relative for comparison between materials and not an up-to-date reflection of store prices.

The way to compare the cost of one material with another is to reduce them both to a common measure. The best common measure is DOLLAR per THERMAL RESISTANCE UNIT per SURFACE MEASURE: \$/RSI/m sq. or ?/R/ft sq.. (search keyword "R-Value" for the title "R value and Temperature conversion charts")

This simply means to take the price of a specific quantity of insulation, divide it by the thermal resistance that this insulation will give you and divide again by the surface area this insulation will cover. I once worked out the prices for all the materials listed here -- only to find that they vary too much from month to month and from region to region to be of any use to you. Phone around for prices and work them out yourself -- and do it again if you wait two months before buying. Just to give you an idea of what your price indicators should look like, when I worked them out the metric prices were from 1.16 to 5.07 \$/RSI/m sq. (Imperial 1.9 to 8.3 ?/R/ft sq.).

Once you have this price indicator, you can get a good idea of the cost of the insulation for your job by simply multiplying by the R factor you want and by the surface area you want to cover. (If you forget that the imperial price indicator will come out in cents and not dollars, the job price you get could give you a heart attack -- divide by 100.)

After eliminating the materials that simply won't work for a given job, your choice may have to be made on the recommendation of people you know who have used it before. Personal experience is not really such a bad guide.

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Environmental, Insulation, R-Value, Techniques