## Evaluating the R-value of pre-existing insulation

| Insulation type | R-value per inch of thickness |
|---|---|
| Fiber glass blanket or batt | 2.9 to 3.8 (use 3.2) |
| High performance fiber glass blanket or batt | 3.7 to 4.3 (use 3.8) |
| Loose-fill fiber glass | 2.3 to 2.7 (use 2.5) |
| Loose-fill rock wool | 2.7 to 3.0 (use 2.8) |
| Loose-fill cellulose | 3.4 to 3.7 (use 3.5) |
| Perlite or vermiculite | 2.4 to 3.7 (use 2.7) |
| Expanded polystyrene board | 3.6 to 4 (use 3.8) |
| Extruded polystyrene board | 4.5 to 5 (use 4.8) |
| Polyisocyanurate board, unfaced | 5.6 to 6.3 (use 5.8) |
| Polyisocyanurate board, foil-faced | 7 |
| Spray polyurethane foam | 5.6 to 6.3 (use 5.9) |

(Includes effects of aging and settling.)

Use this formula to determine the R-value of your **existing** insulation:

[ ] × [ ] = [ ]

Thickness (inches) × R-value per inch = Total R-value

Use this formula to determine how much insulation you need to **add**:

[ ] - [ ] = [ ]

Recommended R-value - Existing insulation R-value = R-value needed

Do you want to know if you have the space available to add the insulation you need?
Then use this formula to determine the *approximate* thickness you need to add:

[ ] ÷ [ ] = [ ]

R-value needed ÷ R-value per inch = Approximate thickness needed

**Note: Use the product information on the insulation packaging to determine the actual thickness for any *new* insulation.**

(Source: Oak Ridge National Laboratory, As found at http://www.ornl.gov/sci/roofs+walls/insulation/ins_05.html)