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Floor insulation is the insulation installed to the underside of the floor over unconditioned spaces. There are 2 insulation entries under the Foundation heading. Both must have a value entered for the tool to run - enter R-0 for the field that does not apply. For example if the house has a crawlspace with R-19 insulation between the floor joists, enter the floor insulation as R-19 and the foundation insulation as R-0.

If there are different insulation R-values in multiple floor spaces, perform a UA calculation (you can use the **Home Energy Score Assessor Calculator*** for this) to determine the appropriate R-value to enter:

- $(A_1/R_1 + A_2/R_2)/(A_1+A_2) = U$
- $1/U = R$
- Where: {A is area (ft^2), R is the nominal R-value (must be >=1), U is U-value}

De-rate the insulation R-value for installation quality. (see diagrams and table for de-rate factors)

R-Value is a measure of the resistance of insulating material to heat transfer. The higher the R-value number, the more effective the insulation. You can use the inches guidelines to estimate the R-value of the floor insulation for fiberglass and similar insulations, or calculate the R-value by identifying the insulation type in the table below and multiplying the number of inches of insulation present by the R-value per inch.

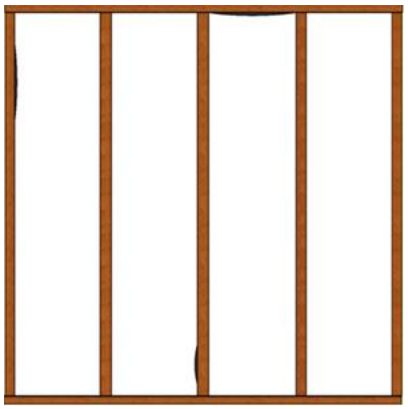
*The **Home Energy Score Assessor Calculator is available to Assessors and is located on the Partner Portal.**

Insulation Tables					
Insulation Type	**R-value**		**Good**	**Fair**	**Poor**
Loose-Fill		Measured Batt Thickness	Effective R-value (2.5 per inch)	Effective R-value (1.8 per inch)	Effective R-value (0.7 per inch)
Cellulose	3.4	0	0	0	0
Fiberglass	2.5	1	3	2	1
Rockwool	3.1	2	5	4	1.5
Perlite	2.5	3	8	5	2
Vermiculite	2.2	4	10	7	3
Rigid		5	13	9	3.5
Polystyrene large curd molded	4	6	15	11	4
Polystyrene small curd extruded	5	7	18	13	5
Polyurethane	6	8	20	14	5.5
Polyisocyanurate	6	9	23	16	6
Spray Foam-in-place		10	25	18	7

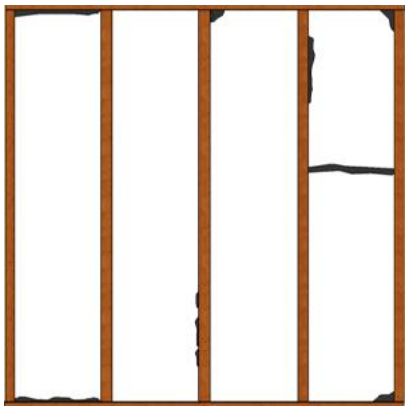
Urethane	6	11	28	20	8
		12	30	22	8.5
Fiberglass Batt (thickness)					
3 1/2 in	13	*Derived from ASHRAE document "Heat Transmission Coefficients for Walls & Roofs"			
6 in	19				
10 in	30	apply de-rates to batt insulation - see graphics below			
12 in	38				

Insulation Installation Quality

Good



Fair



Poor