

Building Material R-Values

MATERIAL	THICKNESS	R-VALUE
Air Films		
Exterior		0.17
Interior Wall		0.68
Interior Ceiling		0.61
Air Space		
Minimum 1/2" up to 4"		1
Building Board		
Gypsum Wall Board	1/2"	0.45
Gypsum Wall Board	5/8"	0.5625
Plywood	1/2"	0.62
Plywood	1"	1.25
Fiber board sheathing	1/2"	1.32
Medium Density Particle Board	1/2"	0.53
Insulating Materials		
R-11 Mineral Fiber with 2x4 metal studs @ 16" OC		5.5
R-11 Mineral Fiber with 2x4 wood studs @ 16" OC		12.44
R-11 Mineral Fiber with 2x4 metal studs @ 24" OC		6.6
R-19 Mineral Fiber with 2x6 metal studs @ 16" OC		7.1
R-19 Mineral Fiber with 2x6 metal studs @ 24" OC		8.55
R-19 Mineral Fiber with 2x6 wood studs @ 24" OC		19.11

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Polyurethane Foam (Foamed on site)	1"	6.25
Polyisocyanurate (Foil Faced)	1"	7.2
Masonry and Concrete		
Common Brick	4"	0.8
Face Brick	4"	0.44
Concrete Masonry Unit (CMU)	4"	0.8
Concrete Masonry Unit (CMU)	8"	1.11
Concrete Masonry Unit (CMU)	12"	1.28
Concrete 60 pounds per cubic foot	1"	0.52
Concrete 70 pounds per cubic foot	1"	0.42
Concrete 80 pounds per cubic foot	1"	0.33
Concrete 90 pounds per cubic foot	1"	0.26
Concrete 100 pounds per cubic foot	1"	0.21
Concrete 120 pounds per cubic foot	1"	0.13
Concrete 150 pounds per cubic foot	1"	0.07
Granite	1"	0.05
Sandstone / Limestone	1"	0.08

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Aluminum / Vinyl (not insulated)		0.61
Aluminum / Vinyl (1/2" insulation)		1.8
Flooring		
Hardwood	3/4"	0.68
Tile		0.05
Carpet with fiber pad		2.08
Carpet with rubber pad		1.23
Roofing		
Asphalt Shingles		0.44
Wood Shingles		0.97
Glazing		
Single Pane	1/4"	0.91
Double Pane with 1/4" air space		1.69
Double Pane with 1/2" air space		2.04
Double Pane with 3/4" air space		2.38
Triple Pane with 1/4" air spaces		2.56
Triple Pane with 1/2" air spaces		3.23
Doors		
Wood, solid core	1 3/4"	2.17
Insulated metal door	2"	15