



## Technical Bulletin

Corporate: P.O. Box 397 • Fortson • Georgia • 31808 • 800-755-0825 • FAX 706-569-6704

**MW# 138-210201**

### Topic: R-Values of Common Building Materials used in EIFS, CIFS® and Stucco

The R-value of a material determines how quickly heat is conducted across it. The values below are some of the more common R-factors for surfaces found on building walls.

To convert R values to RSI values, divide the R value by 5.67826

U Value is 1/R

Values: Inches (millimeters)

#### Insulation Boards

**Type I EPS (EIFS Standard, Common Sizes)**

*3/4" (19): 2.85, 1" (25): 3.8, 1.5" (38): 5.7, 2" (51): 7.6, 3" (76): 11.4, 4" (102): 15.2*

**Type II EPS** *3/4" (19): 3, 1" (25): 4, 1.5" (38): 6, 2" (51): 8, 3" (76): 12, 4" (102): 16*

**Type IV EPS** *3/4" (19): 3.75, 1" (25): 5, 1.5" (38): 7.5, 2" (51): 10, 3" (76): 15, 4" (102): 20*

**Type VIII EPS** *3/4" (19): 2.85, 1" (25): 3.8, 1.5" (38): 5.7, 2" (51): 7.6, 3" (76): 11.4, 4" (102): 15.2*

**Type X XPS** *3/4" (19): 3.75, 1" (25): 5, 1.5" (38): 7.5, 2" (51): 10, 3" (76): 15, 4" (102): 20*

**Neopor® Graphite EPS** *1" (25): 5, 2" (51): 1*

**Polyisocyanurate** *5/8" (.61): 3.75, 3/4" (19): 4.5, 1" (25): 6, 1.5" (38): 9, 2" (51): 12*

**Mineral Wool** *1.5" (38): 6, 2" (51): 8, 3" (76): 12, 4" (102): 16*

#### Common Sheathing Materials

**Gypsum Board** *1/2" (12.7): 0.45, 5/8" (15.8): 0.56*

**Plywood** *1/2" (12.7): 0.63, 5/8" (15.8): 0.78, 3/4" (19): 0.94*

#### Fiberglass Batt Insulation

**Standard** *3.5" (89): 11, 5.5" (140): 19*

**Improved** *3.5" (89): 13, 5.5" (140): 22*

**High Performance** *3.5" (89): 15, 5.5" (140): 24*

#### Disclaimer

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### Masonry, Concrete and Stone

**Common Brick 4" (102): 0.80**

**Face Brick 4" (102): 0.44**

**Concrete Masonry Unit (CMU) 4" (102): 0.80, 8" (204): 1.11, 12" (305): 1.28**

**Concrete 60 pounds per cubic foot, per inch (25) thickness: 0.52**

**Concrete 70 pounds per cubic foot, per inch (25) thickness: 0.42**

**Concrete 80 pounds per cubic foot, per inch (25) thickness: 0.33**

**Concrete 90 pounds per cubic foot, per inch (25) thickness: 0.26**

**Concrete 100 pounds per cubic foot, per inch (25) thickness: 0.21**

**Concrete 120 pounds per cubic foot, per inch (25) thickness: 0.13**

**Concrete 150 pounds per cubic foot, per inch (25) thickness: 0.07**

**Granite per inch (25) thickness: 0.05**

**Sandstone / Limestone per inch (25) thickness: 0.08**

### Cem plaster Fiberstucco and ASTM C926 Stucco

**Stucco 3/8" (9.5): 0.7, 1/2" (12.7): 0.1, 3/4" (19): 0.15, 7/8" (22): 0.18**

### Air Spaces

**Non-Reflective 3/4" (19): 0.78, 4" (102): 0.85**

**Reflective 3/4" (19): 1.67, 4" (102): 2.06**

### Air Films

**Interior Wall 0.68**

**Interior Ceiling 0.61**

**Exterior Wall, Summer 0.25**

**Exterior Wall, Winter 0.17**

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