



The Village of Hartville

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Residential Code of Ohio Energy Code Requirements

Section 1101.2 Compliance of the Residential Code of Ohio (RCO) provides three different methods to demonstrate energy code compliance for 1-, 2-, and 3- family residential dwellings. Please check applicable design method chosen below.

Permanent Certificate is required with all methods of compliance:

Compliance with the International Energy Conservation Code (IECC):
www.EnergyCodes.com

- Prescriptive option Table 402.1.1 & 402.1.2
- Total UA option Section 402.1.4
- Performance option Section 405

Compliance with Chapter 11 of the RCO:

- RCO Sections 1101-1104 (which contains a prescriptive option – Table 1102.1)
- Total UA option Section 1102.1.3

Compliance with The Ohio Home Builder's Association (OHBA) Alternative Energy Code Option Section 1105 of the RCO:

- Compliance Path #1 Tables 1105.2.1 & 1105.2.1.2
- Compliance Path #2 Tables 1105.2.1 & 1105.2.1.2

Job Address:

Printed Name

Signature

Title

Date

CHAPTER 11 ENERGY EFFICIENCY

Prescriptive R-Value Tables of the 2009 IECC, RCO Prescriptive and OHBA Alternative

Prescriptive R-Value Requirements

Table 402.1.1 (IECC Prescriptive)
Insulation and Fenestration Requirements by Component^a

Climate Zone	Fenestration U-Factor ^b	Skylight ^b U-Factor	Glazed Fenestration SHGC ^{b,c}	Ceiling R-Value	Wood Frame Wall R-Value	Mass Wall R-Value ^f	Floor R-Value	Basement Wall ^e R-Value	Slab ^d R-Value and Depth	Crawl Space ^g Wall R-Value
5	0.35	0.60	NR	38	20 or 13 + 5 ^h	13/17	30 ⁱ	10/13	10, 2 ft.	10/13

Table 1102.1 (RCO Prescriptive)
Insulation and Fenestration Requirements by Component^a

Climate Zone	Fenestration U-Factor ^b	Skylight ^b U-Factor	Glazed Fenestration SHGC ^{b,c}	Ceiling R-Value	Wood Frame Wall R-Value	Mass Wall R-Value ^f	Floor R-Value	Basement Wall ^e R-Value	Slab ^d R-Value and Depth	Crawl Space ^g Wall R-Value
5	0.35	0.60	NR	38	20 or 13 + 5 ^h	13/17	30 ⁱ	10/13	10, 2 ft.	10/13

Table 1103.2.1 (OHBA Prescriptive)
Insulation and Fenestration Requirements by Component^a

Compliance Path	Fenestration U-Factor ^b	Skylight U-Factor ^b	Glazed Fenestration SHGC ^{b,c}	Ceiling R-Value	Wood Frame Wall R-Value	Mass Wall R-Value ^f	Floor R-Value	Basement Wall ^e R-Value	Slab ^d R-Value and Depth	Crawl Space ^g Wall R-Value
Path #1	0.32	0.60	NR	49	15 or 13 + 5 ^h	13/17	30 ⁱ	10/13 (min. 4ft.)	10, 2 ft.	10/13
Path #2	0.32	0.60	NR	49	13	13/17	30 ⁱ	10/13 (min. 4ft.)	10, 2 ft.	10/13

- a. R-values are minimums. U-factors and SHGC are maximums. R-19 batts compressed into a nominal 2x6 framing cavity such that the R-value is reduced by R-1 or more shall be marked with compressed batt R-value in addition to the full thickness R-value.
- b. The fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestration.
- c. [IECC] "13/13" means R-13 continuous insulated sheathing on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall. "13/13" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-6 continuous insulated sheathing on the interior or exterior of the home. "10/13" means R-10 continuous insulated sheathing on the exterior or interior of the home or R-13 cavity insulation at the interior of the basement wall.
- c. [RCO & OHBA] "10/13" means R-10 continuous insulated sheathing on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall.
- d. R-5 shall be added to the required slab edge R-values for heated slabs. Restraint test does not apply in Ohio.
- e. This footnote does not apply in Ohio.
- f. This footnote does not apply in Ohio.
- g. Or insulation sufficient to fill the framing cavity, R-39 minimum.
- h. [IECC & RCO] "13+5" means R-13 cavity insulation plus R-5 insulated sheathing. If structural sheathing covers 25 percent or less of the exterior, insulating sheathing is not required where structural sheathing is used. If structural sheathing covers more than 25 percent of exterior, structural sheathing shall be supplemented with insulated sheathing of at least R-2.
- h. [OHBA] "13+5" means R-13 cavity insulation plus R-5 insulated sheathing. If structural sheathing covers 25 percent or less of the exterior, insulating sheathing is not required where structural sheathing is used.
- i. The second R-value applies when more than half the insulation is on the interior of the mass wall.