

WAC 51-11R-40211 Table R402.1.1—Insulation and fenestration requirements by component.

**TABLE R402.1.1
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT^a**

Climate Zone	Fenestration <i>U</i> -Factor ^b	Skylight ^b <i>U</i> -Factor	Glazed Fenestration SHGC ^{b, e}	Ceiling <i>R</i> -Value ^k	Wood Frame Wall ^{g, m, n} <i>R</i> -Value	Mass Wall <i>R</i> -Value ⁱ	Floor <i>R</i> -Value	Below- Grade ^{c, m} Wall <i>R</i> -Value	Slab ^d <i>R</i> -Value & Depth
5 and Marine 4	0.30	0.50	NR	49	21 int	21/ 21	30	10/15/ 21int+TB	10, 2 ft

For SI: 1 foot = 304.8 mm, ci = continuous insulation, int = intermediate framing.

^a *R*-values are minimums. *U*-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the compressed *R*-value of the insulation from Appendix Table A101.4 shall not be less than the *R*-value specified in the table.

^b The fenestration *U*-factor column excludes skylights. The SHGC column applies to all glazed fenestration.

^c "10/15/21+TB" means R-10 continuous insulation on the exterior of the wall, or R-15 on the continuous insulation on the interior of the wall, or R-21 cavity insulation plus a thermal break between the slab and the basement wall at the interior of the basement wall. "10/15/21+TB" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the wall. "TB" means thermal break between floor slab and basement wall.

^d R-10 continuous insulation is required under heated slab on grade floors. See R402.2.9.1.

^e There are no SHGC requirements in the Marine Zone.

^f Reserved.

^g Reserved.

^h Reserved.

ⁱ The second *R*-value applies when more than half the insulation is on the interior of the mass wall.

^j Reserved.

^k For single rafter- or joist-vaulted ceilings, the insulation may be reduced to R-38.

^l Reserved.

^m Int. (intermediate framing) denotes standard framing 16 inches on center with headers insulated with a minimum of R-10 insulation.

ⁿ Log and solid timber walls with a minimum average thickness of 3.5 inches are exempt from this insulation requirement.

[Statutory Authority: RCW 19.27A.025, 19.27A.045, 19.27A.160, and 19.27.074. WSR 17-10-063, § 51-11R-40211, filed 5/2/17, effective 6/2/17. Statutory Authority: RCW 19.27A.020, 19.27A.045, 19.27A.160, and 19.27.074. WSR 16-02-127, § 51-11R-40211, filed 1/6/16, effective 7/1/16. Statutory Authority: RCW 19.27A.025, 19.27A.045, and 19.27.074. WSR 13-20-121, § 51-11R-40211, filed 10/1/13, effective 11/1/13. Statutory Authority: RCW 19.27A.020, 19.27A.045 and chapters 19.27 and 34.05 RCW. WSR 13-04-055, § 51-11R-40211, filed 2/1/13, effective 7/1/13.]