City of KALISPELL
BUILDING FOR THE FUTURE MONTANA

2012 IECC PRESCRIPTIVE RESIDENTIAL ENERGY REQUIREMENTS

The chart below contains the minimum "R" values and maximum "U" values per the 2012 International Energy Conservation Code (IECC) as amended by the Administrative Rules of Montana. The IECC also allows for the use one of two different alternative methods known as "U-Factor" and "Total UA". The calculations for each are done using the U.S. Department of Energy's REScheck computer program. REScheck can be downloaded at no charge at http://www.energycodes.gov/rescheck/download.stm

TABLE 402.1.1
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENTa
****EAVE BAFFLES ARE NOW REQUIRED PER 402.2.3**

CLIMATE ZONE	FENESTRATION U-FACTORb	SKYLIGHTb U-FACTOR	GLAZED FENESTRATION SHGCb,e	CEILING R-VALUE	WOOD FRAME WALL R-VALUE	MASS WALL R-VALUEi	FLOOR R-VALUE	BASEMENTc WALL R-VALUE	SLABd R-VALUE & DEPTH	CRAWL SPACEc WALL R-VALUE
6	0.32	0.55	NR	49**	21 or 13+10h	15/20	30g	15/19	10, 4 ft	15/19

For SI: 1 foot = 304.8 mm.

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 installed R-value of the insulation 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. Exception: Skylights may be excluded from glazed fenestration SHGC requirements in Climate Zones 1 through 3 where the SHGC for such skylights does not exceed 0.30.

c. "15/19" means R-15 continuous insulation on the interior or exterior of the home or R-19 cavity insulation at the interior of the basement wall. "15/19" 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 home. "10/13" means R-10 continuous insulation 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. Insulation depth shall be the depth of the footing or 2 feet, whichever is less in Zones 1 through 3 for heated slabs.

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

f. Basement wall insulation is not required in warm-humid locations as defined by Figure 301.1 and Table 301.1.

g. Or insulation sufficient to fill the framing cavity, R-19 minimum.

h. First value is cavity insulation, second is continuous insulation or insulated siding, so "13+5" means R-13 cavity insulation plus R-5 continuous insulation or insulated siding. If structural sheathing covers 40 percent or less of the exterior, continuous insulation R-value shall be permitted to be reduced by no more than R-3 in the locations where structural sheathing is used – to maintain a consistent total sheathing thickness.

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

** R-38 shall be deemed to satisfy the requirement for R-49 wherever the full height of uncompressed R-38 insulation extends over the top plate at the eaves. 402.2.1