

PIKES PEAK REGIONAL BUILDING DEPARTMENT

International Energy Conservation Code Certificate Single Family Dwellings

This certificate is based on the 2003 International Energy Conservation Code (IECC), as amended by the Pikes Peak Regional Building Code. Include this certificate with your residential construction plans submittal, it will also be reviewed by mechanical plans examiners. This form is applicable for type A-1 residential buildings as defined by the IECC.
(NOTE: If you are using REScheck, provide the signed and dated REScheck printed document instead of this form.)

ADDRESS or MASTER # _____

DECLARATION OF ENERGY CODE METHOD

The IECC provides seven options for compliance with minimum standards. Check the box to indicate your selection below.

- 1. Energy Analysis (IECC Section 402.1). Available only to architects or engineers licensed by the state of Colorado.*
- 2. Performance by individual component (IECC Section 502.2.1)
- 3. Performance by envelope (IECC Section 502.2.2)
- 4. Acceptable practice (IECC 502.2.3)
- 5. Prescriptive method (IECC Section 502.2.4)
- 6. Practical method (IECC Section 602.1)

* If Energy Analysis is selected, do not continue with this form. Submit data and calculations with the plans submittal.

INSULATION DATA

State the appropriate values for the project area; this may be the entire house or a portion such as a room addition.

_____ Area of exterior doors (sq ft)	_____ R value of ceiling insulation
_____ Area of exterior glazing (sq ft)	_____ R value of exterior wall
_____ Gross area of exterior walls (sq ft)	_____ R value of floor over unheated space
_____ (U _g) Glass/window units	_____ R value of floor over exterior space
_____ (U _d) Doors	_____ R value of basement wall
	_____ R value of slab perimeter
	_____ R value of crawl space wall

ENERGY CALCULATIONS

If method 2, 3 or 4 is used, attach documentation, calculation or data to substantiate compliance with declared method.

If method 5 is used, please state the window area percentage of the gross exterior wall: _____%

CERTIFICATION

I certify the data stated is correct to the best of my knowledge based on the plans provided and calculations performed for the address (or master number) listed above.

Signature

Date

Print full name

Phone number

Name of company

International Energy Conservation Code Specifications

Single Family Dwellings

Use the following tables for minimum U- and R-Values applicable to the selected Method.

METHODS 2, 3 & 4 IECC TABLE 502.2^a HEATING & COOLING CRITERIA

ELEMENT	MODE	SINGLE FAMILY DETACHED DWELLINGS
		U_o
Walls	Heating/Cooling	0.13
Roof/Ceiling	Heating/Cooling	0.026
Floors over unheated spaces	Heating/Cooling	0.05
Heated slab on grade ^c	Heating	R-Value 7.5
Unheated slab on grade ^c	Heating	R-Value 5.0
Basement wall ^{b,c}	Heating/Cooling	U-Value 0.10
Crawl space wall ^{b,c}	Heating/Cooling	U-Value 0.077

Footnotes:

- a. Values must be determined using the graphs [Figures 502.2(1-6)] with HDD as specified in Table 302.1 of the 2003 IECC as amended.
- b. Basement & crawl space wall U-Factors are based on the wall components and surface air films. Adjacent soil does not affect the U-Factor.
- c. Typical foundation insulation techniques are found in the Building Foundation Design Handbook published by the Department of Energy.

METHODS 5 & 6 IECC TABLES 502.2.4(1 - 6) and 602.1 HEATING & COOLING CRITERIA

WINDOW AREA PERCENTAGE OF GROSS EXTERIOR WALL	MAXIMUM	MINIMUM					
	Glazing U-Factor	Ceiling R-Value	Exterior Wall R-Value	Floor R-Value	Basement wall R-Value	Slab perimeter R-Value	Crawl space wall R-Value
8%	0.45	R-38	R-13	R-19	R-10	R-5, 3 ft	R-16
12%	0.40	R-38	R-13	R-19	R-10	R-5, 3 ft	R-16
15%	0.35	R-38	R-13	R-21	R-10	R-5, 3 ft	R-20
18%	0.34	R-49	R-22	R-19	R-10	R-8, 3 ft	R-17
20%	0.31	R-49	R-24	R-19	R-10	R-7, 3 ft	R-17
25%	0.25	R-49	R-19	R-21	R-10	R-9, 3 ft	R-20

Notes for Methods 5 & 6:

One door may be omitted from calculations. The maximum U-Factor for any additional door is 0.35.
 Floors over exterior spaces must meet the same criteria as Ceiling R-Value, including bay windows, cantilevers and overhangs.
 Floors over unheated, enclosed spaces, such as garages and crawl spaces, must meet the Floor R-Value criteria.
 For Method 6 use the 15% criteria. However, do not use Method 6 if window area percentage of gross exterior wall exceeds 15%.