

IECC Compliance Guide to Window Selection in Missouri

Designed to Comply with the IECC Requirements for New Single-Family Residential Buildings in Missouri

Code: 2000 International Energy Conservation Code (IECC)

First Edition

How to Use This Guide

This guide is designed to help select windows that will meet the requirements of the IECC in Missouri. Each county is assigned to one of five packages (A through E), which vary according to the different climate zones in Missouri.

Step-by-Step Instructions

1. Use the color-coded map to locate the county in which construction is taking place and find the package (A through E) associated with that county.
2. Use the "Table of IECC Requirements for Window Selection in Missouri" (on the back of this sheet) to find the prescriptive path based upon the package selected in Step 1, above.
3. Construct the home with windows that have area weighted average U-factors less than or equal to the values for the corresponding path and meet the code maximum air leakage requirements.

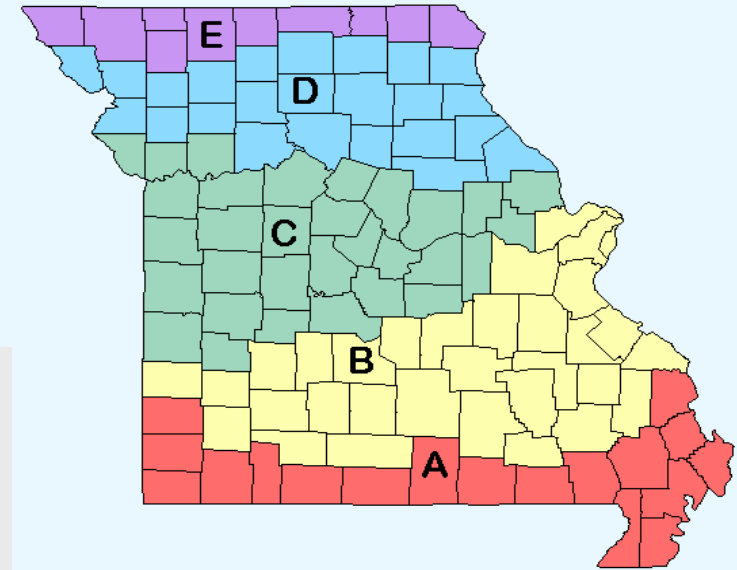
Example: If you are constructing a home with a window area of 15% in St. Louis County, found in Package B, you will comply with the IECC window requirements in Missouri if your windows have an area weighted average maximum U-factor of 0.45 and air leakage less than 0.3 cfm/sq.ft.

Obtaining the IECC

The IECC is published by the International Code Council (ICC). For additional details on the IECC or to purchase a copy, contact the ICC or visit its website at www.iccsafe.org.

Limitations

This guide is an energy code (IECC based) window selection compliance aid for Missouri and does not provide a guarantee for meeting the state energy code. The guide has not been customized to reflect any state-specific amendments to the IECC that Missouri may adopt or has adopted. The window requirements in this guide also depend upon the energy performance values of other envelope components in the home, i.e., insulation R-values in ceilings, walls, etc., not identified in this guide. For those values, refer to Tables in Chapter 5 of the IECC. For additional details on Missouri's energy code, contact your local building code official.



Missouri Counties by Package

A 4,000 - 4,499 HDD	
Barry	Newton
Butler	Oregon
Cape Girardeau	Ozark
Dunklin	Pemiscot
Howell	Ripley
Jasper	Scott
McDonald	Stoddard
Mississippi	Stone
New Madrid	Taney

B 4,500 - 4,999 HDD	
Barton	Perry
Bollinger	Phelps
Carter	Polk
Christian	Pulaski
Crawford	Reynolds
Dade	Shannon
Dallas	St. Charles
Dent	St. Francois
Douglas	St. Louis
Franklin	St. Louis City
Greene	Ste. Genevieve
Iron	Texas
Jefferson	Washington
Laclede	Wayne
Lawrence	Webster
Madison	Wright

C 5,000 - 5,499 HDD			
Bates	Cole	Lafayette	Pettis
Benton	Cooper	Lincoln	Platte
Boone	Gasconade	Maries	Ray
Callaway	Henry	Miller	Saline
Camden	Hickory	Moniteau	St. Clair
Cass	Howard	Montgomery	Vernon
Cedar	Jackson	Morgan	Warren
Clay	Johnson	Osage	

D 5,500 - 5,999 HDD			
Adair	Chariton	Knox	Monroe
Andrew	Clinton	Lewis	Pike
Audrain	Daviess	Linn	Ralls
Buchanan	De Kalb	Livingston	Randolph
Caldwell	Grundy	Macon	Shelby
Carroll	Holt	Marion	Sullivan

E 6,000 - 6,499 HDD			
Atchison	Harrison	Putnam	Worth
Clark	Mercer	Schuyler	
Gentry	Nodaway	Scotland	

HDD = Heating Degree Days

Table of IECC Requirements for Window Selection in Missouri

Simplified Prescriptive Window Requirements for Compliance with the IECC for New Single-Family Residential Buildings in Missouri

Package ^a	Maximum Window U-Factor ^b
A	0.45
B	0.45
C	0.45
D	0.40
E	0.35

a. This table of prescriptive requirements is applicable to homes in which the ratio of the rough opening of windows to the gross wall area, expressed as a percentage, is 15%. For homes with glazing areas that are greater than 15%, please refer to Tables 502.2.4(4)-(6) in the IECC.

b. U-factors may be determined by calculating an area weighted average U-factor for all windows. For example, Area Weighted Average U-factor equals $((\text{Area1} \times \text{U1}) + (\text{Area2} \times \text{U2})) / (\text{Total Area})$. The area weighted average must not exceed the maximum values in the selected path.

NOTES:

1. This table of window requirements is based upon the International Energy Conservation Code (IECC) and does not reflect any state-specific amendments to the IECC. The IECC specifies additional requirements for other parts of the building envelope not listed here, such as insulation for walls and ceilings.
2. This table applies to single-family, residential construction.
3. "Window" refers to any translucent or transparent material (i.e., glazing) in exterior openings of buildings, including skylights, glass doors, the glass areas of opaque doors, and glass block, along with the accompanying sashes, frames, etc.
4. Window area % is the ratio of the area of the rough opening of windows to the gross wall area, expressed as a percentage. Up to one percent of total window area may be exempt from the U-factor requirement.
5. U-factor is a number, generally between 0.2 and 1.20, that indicates the rate of heat loss (or gain) through a window. A lower U-factor demonstrates a greater resistance to heat loss and gain, i.e., better insulating value, of the window. This number is important for winter comfort.
6. Window U-factor must be determined from a National Fenestration Rating Council (NFRC) label on the product (see sample label below), or from a limited table of product "default" values in the IECC.
7. The code requires that windows be labeled in a manner to determine that they meet the IECC's air infiltration requirements; specifically, equal to or better than 0.30 cfm per square foot of window area (swinging doors below 0.50 cfm) as determined in accordance with AAMA/WDMA 101/I.S.2 (ASTM E 283).
8. The labeled product U-factor value should also be used in calculation procedures to properly size the home's HVAC equipment. The IECC requires the use of a computational procedure like ACCA Manual J to size equipment. Properly sized equipment will operate more efficiently and effectively and will save money up front because consumers can avoid paying extra for oversized equipment.

Look for the NFRC Label!

The most important value to look for is the U-factor

		World's Best Window Co. Millennium 2000 ⁺ Vinyl-Clad Wood Frame Double Glazing • Argon Fill • Low E Product Type: Vertical Slider	
ENERGY PERFORMANCE RATINGS			
U-Factor (U.S./I-P)	Solar Heat Gain Coefficient	0.35	0.32
ADDITIONAL PERFORMANCE RATINGS			
Visible Transmittance	Air Leakage (U.S./I-P)	0.51	0.2
<small>Manufacturer stipulates that these ratings conform to applicable NFRC procedures for determining whole product performance. NFRC ratings are determined for a fixed set of environmental conditions and a specific product size. Consult manufacturer's literature for other product performance information. www.nfrc.org</small>			

For more information on energy efficient windows, go to the Efficient Windows Collaborative website at: www.efficientwindows.org

