IECC Compliance Guide to Windows Used for Replacement and Remodeling in Washington

Designed to Comply with the IECC Requirements for Existing Single-Family Residential Buildings in Washington

Code: 2000 International Energy Conservation Code (IECC) **First Edition**

How to Use This Guide

This guide is designed to meet the requirements of the IECC as it relates to Washington with respect to replacement windows and remodeling. Each county is assigned to one of two packages (A or B), which vary according to the different climate zones in Washington.

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 or B) associated with that county.

2. Use the "Table of IECC Requirements for Windows Used for Replacement or Remodeling in Washington" (on the back of this sheet) to choose proper windows based upon the package selected in Step 1, above.

3. Replace the old windows or complete remodeling with windows that have U-factors less than or equal to the value for the selected path and meet the code's maximum air leakage requirements.

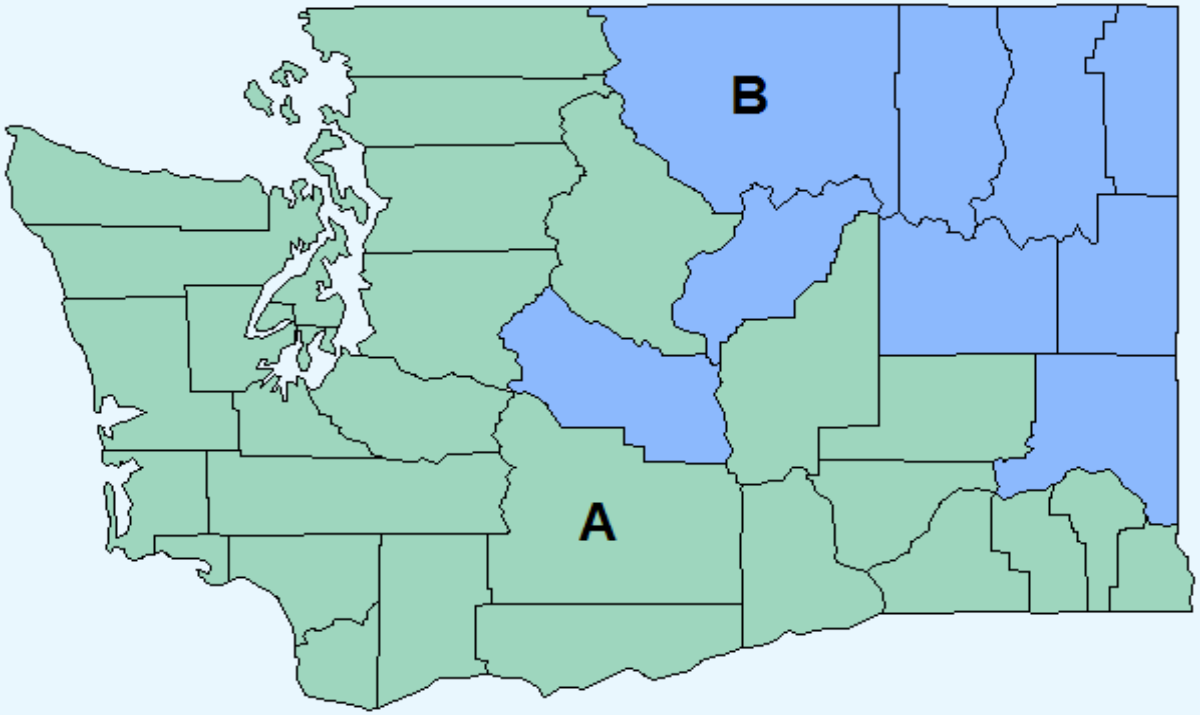
Example: *If you are replacing windows in a home in King County, found in Package A, you will comply with the IECC as it relates to Washington if your replacement windows have a maximum U-factor of 0.40 and air leakage less than 0.3 cfm/sq.ft.*

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) replacement window and remodeling compliance aid for Washington 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 Washington may adopt or has adopted. The window requirements in this guide, when used for remodeling, 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 Washington's energy code, contact your local building code official.



Washington Counties by Package

A

4,000 - 5,999 HDD		
Adams	Grant	Pierce
Asotin	Grays Harbor	San Juan
Benton	Island	Skagit
Chelan	Jefferson	Skamania
Clallam	King	Snohomish
Clark	Kitsap	Thurston
Columbia	Klickitat	Wahkiakum
Cowlitz	Lewis	Walla Walla
Franklin	Mason	Whatcom
Garfield	Pacific	Yakima

B

6,000 - 8,499 HDD
Douglas
Ferry
Kittitas
Lincoln
Okanogan
Pend Oreille
Spokane
Stevens
Whitman

HDD = Heating Degree Days

Table of IECC Requirements for Windows Used for Replacement or Remodeling in Washington

Simplified Prescriptive Requirements for Compliance with the IECC for Window Replacement and Remodeling in Washiongton

Package	Maximum Window U-factor
A	0.40
B	0.35

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

Efficient Windows Collaborative

www.efficientwindows.org

Look for the NFRC Label!

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

NOTES:

1. This table of requirements for windows used for replacement or remodeling is based upon the International Energy Conservation Code (IECC) and does not reflect any state-specific amendments to the IECC. The IECC has requirements, in addition to those shown, for additions to existing homes.
2. Source of Requirements: 2000 IECC, Ch. 5, Section 502.1.5, 502.2.5, and Table 502.2.5.
3. This table applies to single-family, residential construction.
4. Remodeling projects permitted to use this guide are additions, other than sunroom additions, less than 500 square feet of conditioned floor area. The total area of fenestration products shall not exceed 40% of the gross wall and roof area of the addition.
5. Alternate compliance approaches must be used for additions greater than 500 square feet and/or 40% fenestration area.
6. This guide may also be used for conditioned sunroom additions that maintain thermal isolation; are not used as kitchens or sleeping rooms; and are served by a separate heating or cooling system or are thermostatically controlled as a separate zone of the existing system.
7. The maximum U-factor for a replacement skylight for Packages A - B (above 2,000 heating degree days) shall be 0.60.
8. "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.
9. Replacement refers to instances in which an entire new window unit is installed, including insert or pocket-type window replacements, which are commonly installed over an existing window frame.
10. 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 or gain, i.e., better insulating value, of the window. This number is important for winter comfort.
11. 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.
12. 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 glass doors below 0.50 cfm) as determined in accordance with AAMA/WDMA 101/I.S.2 (ASTM E 283).
13. 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 operates more efficiently and effectively and will save money up front because consumers can avoid paying extra for oversized equipment.