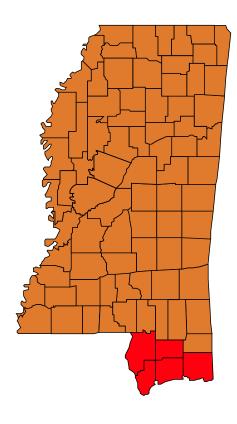
# **Energy Code Compliance Guide to Window Selection** in Mississippi

Code: 2009 International Energy Conservation Code

This guide is designed to help select windows, doors and skylights that will meet the requirements of the 2009 IECC for residential buildings as it relates to Mississippi. The requirements in the 2009 IECC are the same for windows used in new buildings, remodeling & additions to existing buildings, and as replacements of existing windows.



## **Step-by-Step Instructions**

- 1. Using the climate zone map or table, match the jurisdiction to the appropriate IECC climate zone. Use the "IECC Prescriptive Window Energy Efficiency Requirements" (on the back of this sheet) to determine the window performance requirements associated with the climate zone.
- 2. Construct the home with windows that have area weighted average U-factor and SHGC values less than or equal to the values for the climate zone and meet the code maximum air leakage requirements.

IECC CLIMATE ZONE 3					
Adams	Itawamba	Pike			
Alcorn	Jasper	Pontotoc			
Amite	Jefferson	Prentiss			
Attala	Jefferson Davis	Quitman			
Benton	Jones	Rankin			
Bolivar	Kemper	Scott			
Calhoun	Lafayette	Sharkey			
Carroll	Lamar	Simpson			
Chickasaw	Lauderdale	Smith			
Choctaw	Lawrence	Sunflower			
Claiborne	Leake	Tallahatchie			
Clarke	Lee	Tate			
Clay	Leflore	Tippah			
Coahoma	Lincoln	Tishomingo			
Copiah	Lowndes	Tunica			
Covington	Madison	Union			
DeSoto	Marion	Walthall			
Forrest	Marshall	Warren			
Franklin	Monroe	Washington			
George	Montgomery	Wayne			
Greene	Neshoba	Webster			
Grenada	Newton	Wilkinson			
Hinds	Noxubee	Winston			
Holmes	Oktibbeha	Yalobusha			
Humphreys	Panola	Yazoo			
Issaquena	Perry				

IECC CLIMATE ZONE 2				
Hancock	Jackson	Stone		
Harrison	Pearl River			

## The 2009 International Energy Conservation Code

The 2009 IECC was developed by the International Code Council (ICC) and is currently available to states for adoption. The IECC is the national model standard for energy-efficient residential construction recognized by federal law. The American Recovery and Reinvestment Act of 2009 makes funds available to jurisdictions that have committed to adopt and implement the 2009 IECC. Users of this guide are strongly recommended to obtain a copy of the IECC and refer to it for any questions and further details on compliance. IECC compliance training is also available from many sources. To obtain a copy of the 2009 IECC, contact the ICC or visit www.iccsafe.org.

## **IECC Prescriptive Window Energy Efficiency Requirements**

Code: 2009 International Energy Conservation Code

This table of window, door and skylight requirements is from the 2009 IECC and does not necessarily reflect the version of the IECC that may have been adopted by the state or any state-specific amendments. These requirements apply to all fenestration products in residential buildings, including those used in new residences, in additions and to replace existing windows. For a definition of "fenestration" see Note 2 below. The IECC specifies additional requirements for other parts of the building envelope not listed here, such as insulation for walls and ceilings.

Package	Fenestration U-factor	Skylight U-Factor	Glazed Fenestration SHGC
Climate Zone 3	0.50	0.65	0.30
Climate Zone 2	0.65	0.75	0.30

#### NOTES:

- This table applies to residential buildings as defined in the IECC for compliance under the prescriptive compliance option. The 2009 IECC permits unlimited window area, so long as the prescriptive requirements are satisfied.
- 2. "Fenestration" refers to glazed window and door products in exterior walls of buildings, including glass doors and glass block, along with the accompanying sashes, frames, etc. and opaque doors. "Skylight" refers to glazed products installed at a slope of 15 degrees or more from vertical. "Glazed Fenestration" includes all glazed fenestration and all skylights.
- 3. 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. As a result, a lower number produces greater winter comfort.
- 4. SHGC, or Solar Heat Gain Coefficient, is a number between 0 and 1 that indicates the fraction of radiation (heat) from the sun that is transmitted through the window; the lower the SHGC, the less the amount of solar radiation that is allowed to pass through the window and become unwanted additional heat in the summer. As a result, a lower number produces greater summer comfort.
- Window and skylight U-factor and SHGC values are maximum acceptable levels. An area-weighted average of fenestration products shall be permitted to satisfy the U-factor and SHGC requirements.
- 6. Up to 15 square feet of glazed fenestration is permitted to be exempt from the U-factor and SHGC requirements. One side-hinged opaque door assembly up to 24 square feet is exempted from the Fenestration U-factor requirement. These exceptions apply in the prescriptive path only. Certain impact rated fenestration may be permitted to have a higher U-factor in climate zones 2 and 3. Special exceptions may apply for fenestration U-factor requirements in thermally isolated sunrooms.
- 7. Window, door and skylight U-factors and SHGCs must be determined from a National Fenestration Rating Council (NFRC) rating that is independently certified and set forth on a label on the product or from a limited table of product default values in the IECC. See <a href="www.nfrc.org">www.nfrc.org</a> for more details on the NFRC rating system.
- 8. Windows, doors and skylights must be labeled in a manner to determine that they meet the IECC's air infiltration requirements.
- The labeled product U-factor and SHGC should also be used in calculation
  procedures to properly size the home's HVAC equipment. The IECC requires the
  use of an appropriate computational procedure to size equipment.



### Look for the NFRC Label!

The 2 most important values to look for are: U-factor & Solar Heat Gain Coefficient (SHGC)



See the Efficient Windows Collaborative (EWC) web site for more information.

www.efficientwindows.org

#### Limitations

This guide is an energy code compliance aid for window selection in Mississippi based upon the simple prescriptive option of the 2009 IECC and reflects the prescriptive values from Table 402.1.1 of that code. This guide only addresses window requirements and not the requirements applicable to the rest of the home. It does not provide a guarantee that a home meets the IECC. This guide is not designed to reflect the actual energy code, with amendments, if any, adopted in Mississippi and does not, therefore, provide a guarantee for meeting the state energy code. For additional details on Mississippi's energy code, including how it may differ from the IECC, please contact your local building guide official.