



TEXAS DEPARTMENT OF LICENSING AND REGULATION

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The 2003 International Residential Code (IRC) and the 2003 International Energy Conservation Code (IECC) require labeling of window and door assemblies as verification of the following information for fenestration products: U-factor; solar heat gain coefficient (SHGC); and air leakage rates. Fenestration is defined by the codes as “skylights, roof windows, vertical windows (whether fixed or movable), opaque doors, glazed doors, glass block, and combination opaque/glazed doors.” Opaque doors are doors without glazing.

Labeling of all fenestration products is required to verify compliance with the energy requirements of the 2003 International Codes as indicated in the following paragraphs.

Section 102.5.2 of the IECC and N1101.3.2 of the IRC require that fenestration products be labeled with the U-factor for the product. Where a fenestration product is not labeled then the U-factor for the product will be determined by assigning a default U-factor in accordance with Tables 102.5.2(1) and 102.5.2(2) of the IECC.

Section 102.5.2 of the IECC and N1101.3.2 of the IRC also require that fenestration products be labeled with the SHGC (solar heat gain coefficient) for the product. Where a fenestration product is not labeled then the SHGC for the product will be determined by assigning a default SHGC in accordance with Table 102.5.2(3) of the IECC. Please note that default SHGC's can not be used for most fenestration products in residential construction in the State of Texas. Section 502.1.5 of the IECC and N1102.4 of the IRC require an area-weighted-average solar heat gain coefficient of 0.40 for fenestration products installed in locations with 3,500 or fewer heating degree days. This encompasses most of Texas. In most cases fenestration products installed in residential construction in Texas must bear an NFRC label that specifies the SHGC.

An example of a typical NFRC label that may be found on fenestration products to document the U-factor and SHGC may be found at <http://www.nfrc.org/label.html>.

Section N1101.3.2.2 of the IRC and 802.3 of the IECC also require prefabricated fenestration products to be **labeled** as in compliance with the allowable air leakage rates of Table 502.1.4.1 of the IECC. Windows must be certified and labeled as in compliance with AAMA/WDMA 101/I.S.2-97 or 101/I.S.2/NAFS-02. Information concerning AAMA certification and labeling may be found at <http://www.aamanet.org/index.asp>. The AAMA certification label will specify the standard to which the window was tested and certified. AAMA labels that indicate the window was certified in accordance with AAMA/WDMA 101/I.S.2-97 will verify compliance with the allowable air leakage rates of the code. Doors, either sliding or swinging, must be labeled with the air leakage rate determined in accordance with NFRC 400. A copy of this standard, NFRC 400, may be downloaded from the NFRC web site at <http://www.nfrc.org/index.html>. An NFRC label that indicates the air leakage rate for the door will verify compliance with the air leakage rates of the code.