



Informational Bulletin

Important Information Concerning Florida's New Energy Code

On March 15, 2012, the 2010 Florida Building Code, Energy Code (FBCEC) took effect. This code is based on the 2009 International Energy Conservation Code (IECC) and has prescriptive requirements for windows, doors, and skylights. The new code will require products in Florida to be labeled and certified by the manufacturer for U-Factor and Solar Heat Gain Coefficient (SHGC). Miami-Dade Product Approval will also require the manufacturer to submit evidence of compliance with the code. These ratings shall be determined in accordance with NFRC 100 and NFRC 200 by accredited, independent laboratories. The products will also need to be listed and labeled by the manufacturer for Air Infiltration. Air Infiltration shall be tested according to AAMA/WDMA/CSA 101/I.S.2/A440 (NAFS) or NFRC 400.



Required Values for Code Compliance

Residential Buildings	Windows	Skylights	Sliding Glass Doors	Swinging Doors
U-Factor	≤0.65	≤0.75	≤0.65	≤0.65
SHGC	≤0.30	≤0.30	≤0.30	≤0.30
Air Infiltration	≤0.3	≤0.3	≤0.3	≤0.5
Commercial Buildings	Windows	Skylights	Opaque Doors (Non-swinging)	Opaque Doors (Swinging)
U-Factor	≤0.45	≤1.36	≤1.45	≤0.70
SHGC				
0-40% Window to Wall Ratio	≤0.25	≤0.19	Not applicable	Not applicable
40-50% Window to Wall Ratio	≤0.19 (New) / ≤0.25 (Renovations)	≤0.19	Not applicable	Not applicable
>50% Window to Wall Ratio	Performance Path Only	≤0.19	Not applicable	Not applicable
Air Infiltration	≤0.3	≤0.3	≤0.3	≤0.5

Default values for U-Factor and SHGC are assigned if ratings are not determined as required. For several categories as noted below, those default values are compliant for U-Factor. However, none of the defaults for SHGC are compliant. Due to the nature of the NFRC process, determination of U-Factor and SHGC go hand-in-hand; therefore, it will be necessary to certify and label the product with both U-Factor and SHGC values per NFRC standards.

Default Glazed Fenestration U-Factor

Frame Type	Single Pane	Double Pane	Single Skylight	Double Skylight
Metal	1.20	0.80	2.00	1.30
Metal with Thermal Break	1.10	0.65	1.90	1.10
Nonmetal or Metal Clad	0.95	0.55	1.75	1.05
Glazed Block	0.60	0.60	0.60	0.60

Door Type	U-Factor
Uninsulated Metal	1.20
Insulated Metal	0.60
Wood	0.50
Insulated, nonmetal edge max 45% glazing, any glazing double pane	0.35

Default Glazed Fenestration SHGC

Glazing Type	Clear	Tinted
Single Glazed	0.8	0.7
Double Glazed	0.7	0.6
Glazed Block	0.6	0.6

Compliance With The New Code

Since the inception of the program over twenty years ago, Architectural Testing (ATI) has been helping clients certify their products to NFRC requirements, including both computer simulation and physical testing. If it is discovered that a product does not comply with the code requirements during the simulation phase, we will help clients understand what changes are needed to obtain the performance level desired. Once a code-compliant design offering is reached, validation testing is performed and ATI submits the reports to the client's NFRC Inspection Agency of choice. Upon completion of the NFRC's work, clients are authorized to apply the NFRC label which is recognized by all code officials as evidence of compliance with the new energy code requirements.

Air leakage testing, as well as other air/water/structural performance criteria may be required when doing business in Florida. Walking you through the Florida product approval process, Architectural Testing is your one-stop, end-to-end solution with over 40 years of building product approval experience. Should you require any of these services or have additional questions concerning this topic, please feel free to contact us.

About The Author | Mike Thoman, P.E. | Director - Thermal Testing and Computer Simulation



Mike Thoman has over 12 years of experience as an engineer specializing in thermal testing and computer simulation of residential, commercial, and industrial windows, doors, and curtain wall systems. He has performed and/or supervised testing on thousands of products while with Architectural Testing. Testing expertise includes determination of heat flow through products (R-Value and U-Factor), environmental exposure, durability of products, reaction of materials to environmental stimulus (sunlight), and research and development of new test methods.

