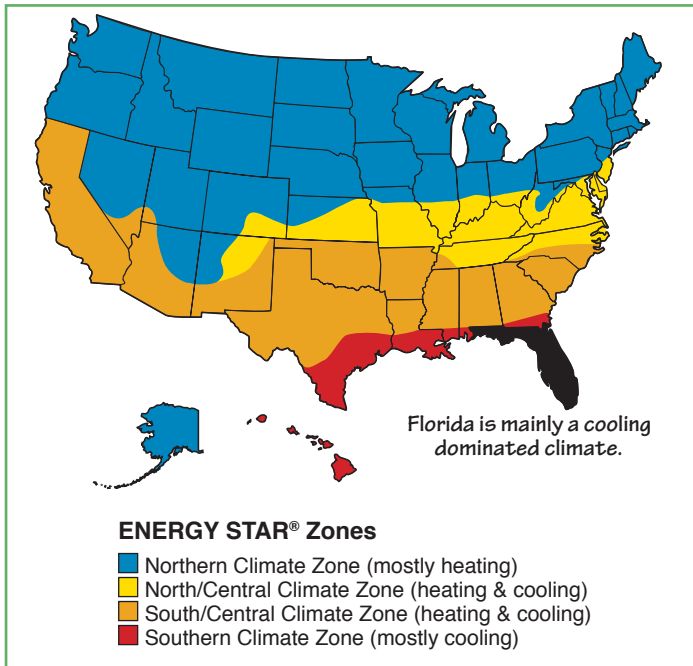


Energy Efficient Windows In Florida

NUAIR[®] Windows and Doors

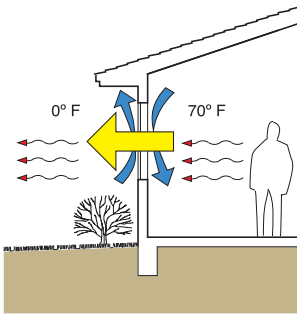


Florida - The Rules Are Different Here

The old promotional slogan holds true when it comes to energy efficient windows in Florida. Because Florida is mainly a cooling dominated climate the energy emphasis for windows is on stopping heat gain into the home rather than heat loss. While in colder climates homeowners favor using windows with a lower U-value and a higher Solar Heat Gain (solar heat admitted through a window) the opposite is true in Florida where the transfer of solar heat into the home can significantly increase energy costs. The Solar Heat Gain Coefficient (SHGC) is the most significant measure of a window's energy saving performance in southern climates such as Florida. The lower the SHGC the better a window performs when it comes to energy efficiency. The US Department of Energy recommends SHGC of 0.4 or less for Florida. Using windows with even lower numbers (and better performance) can help even more on reducing energy costs.

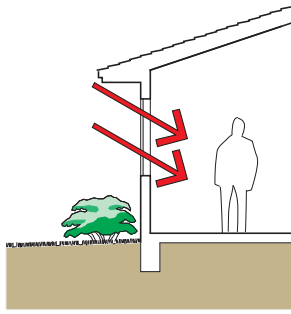
While there are other factors that determine a window's over all energy efficiency (see below) the most important in Florida is the SHGC. Refer to the chart in this document to see where NuAir products compare to the USDOE recommendations.

What Do All The Numbers Mean?



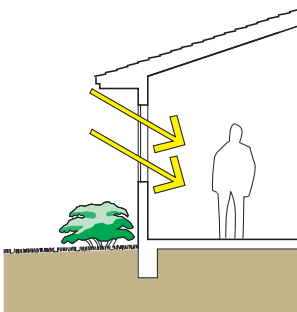
U-Factor

The rate of heat loss is indicated in terms of the U-factor (U-value) of a window assembly. The insulating value is indicated by the R-value which is the inverse of the U-value. The lower the U-factor, the greater a window's resistance to heat flow and the better its insulating value. U=U-factor in Btu/hr-sf-°F. The U-factor is a primary rate of measure for colder climates. In Florida the desired U-factor is 0.65 or less



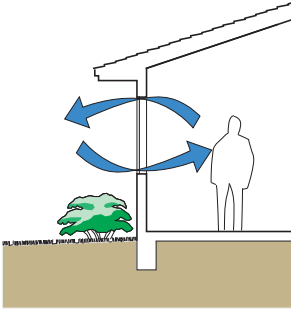
Solar Heat Gain Coefficient (SHGC)

The SHGC is the fraction of incident solar radiation admitted through a window. SHGC is expressed as a number between 0 and 1. The lower a window's solar heat gain coefficient, the less solar heat it transmits and the better the window will perform when it comes to energy efficiency in southern climates. In Florida the desired SHGC should be 0.4 or less



Visible Transmittance (VT)

The visible transmittance (VT) is an optical property that indicates the amount of visible light transmitted. The NFRC's VT is a whole window rating and includes the frame which does not transmit any visible light. While VT theoretically varies between 0 and 1, most values are between 0.3 and 0.8. The higher the VT, the more light is transmitted. A high VT is desirable to maximize daylight. VT=Visible Transmittance in fraction of incident visible radiation.



Air Leakage (AL)

Heat loss and gain occur by infiltration through cracks in the window assembly. Air leakage is expressed in cubic feet of air passing through a square foot of window area. The lower the AL, the less air will pass through cracks in the assembly. While many think that AL is extremely important, it is not as important as U-factor and SHGC. AL=Air Leakage is measured in cfm/sf.

Energy Efficient Windows In Florida

NFRC Test Results – NuAir Windows

Benefits of High Performance Windows

Cooling and Heating Season Savings

Low-E coatings and insulating spacers can significantly reduce winter heat loss and summer heat gain.

Improved Daylight and View

New glazings with low-solar-gain low-E coatings can reduce solar heat gain significantly with a minimal loss of visible light (compared to older tints and films).

Improved Comfort

In summer and winter occupant comfort is increased; window temperatures are more moderate and there are fewer cold drafts. Discomfort from strong summer sunlight is reduced.

Reduced Condensation

Frame and glazing materials that resist heat conduction do not become cold and this results in less condensation.

Reduced Fading

Coatings on glass or plastic films within the window assembly can significantly reduce the ultraviolet (UV) and other solar radiation that causes fading of fabrics and furnishings.

Lower Mechanical Equipment Costs

Using windows that significantly reduce solar heat gain means that cooling equipment costs may be reduced.

		I.G. Config Type	Pane thickness #1	Spacer / Gap Fill	Pane thickness #2	Grid Size	Total Product U-Factor	Total Product SHGC	Total Product VT
Single Hung Window	Series 900	Clr / Clr	1/8"	5/16" Air	1/8"	n/a	0.67	0.64	0.68
		Clr / Clr	1/8"	5/16" Air	1/8"	<1"	0.68	0.58	0.61
		SB60 / Clr	1/8"	5/16" Air	1/8"	n/a	0.54	0.34	0.61
		SB60 / Clr	1/8"	5/16" Air	1/8"	<1"	0.56	0.31	0.54
	Series 950	Clr / Clr	1/8"	5/16" Air	1/8"	n/a	0.67	0.64	0.68
		Clr / Clr	1/8"	5/16" Air	1/8"	<1"	0.68	0.58	0.61
		SB60 / Clr	1/8"	5/16" Air	1/8"	n/a	0.54	0.34	0.61
		SB60 / Clr	1/8"	5/16" Air	1/8"	<1"	0.56	0.31	0.54
	Series 975	Clr / Clr	1/8"	5/16" Air	1/8"	n/a	0.69	0.64	0.67
		Clr / Clr	1/8"	5/16" Air	1/8"	<1"	0.70	0.57	0.60
		SB60 / Clr	1/8"	5/16" Air	1/8"	n/a	0.56	0.34	0.60
		SB60 / Clr	1/8"	5/16" Air	1/8"	<1"	0.58	0.31	0.53
Series 9000	Clr / Clr Lami	1/8"	3/16" Air	5/16" Lami	n/a	0.76	0.57	0.61	
	Clr / Clr Lami	1/8"	3/16" Air	5/16" Lami	<1"	0.79	0.51	0.54	
	SB60 / Clr Lami	1/8"	3/16" Air	5/16" Lami	n/a	0.68	0.32	0.54	
	SB60 / Clr Lami	1/8"	3/16" Air	5/16" Lami	<1"	0.72	0.29	0.48	
Horizontal Roller Window	Series 900	Clr / Clr	1/8"	3/16" Air	1/8"	n/a	0.69	0.63	0.66
		Clr / Clr	1/8"	3/16" Air	1/8"	<1"	0.69	0.57	0.59
		SB60 / Clr	1/8"	3/16" Air	1/8"	n/a	0.56	0.34	0.59
		SB60 / Clr	1/8"	3/16" Air	1/8"	<1"	0.57	0.31	0.53
	Series 975	Clr / Clr	1/8"	3/16" Air	1/8"	n/a	0.69	0.63	0.66
		Clr / Clr	1/8"	3/16" Air	1/8"	<1"	0.70	0.57	0.59
		SB60 / Clr	1/8"	3/16" Air	1/8"	n/a	0.55	0.34	0.60
		SB60 / Clr	1/8"	3/16" Air	1/8"	<1"	0.56	0.31	0.53
	Series 9000	Clr / Clr Lami	1/8"	3/16" Air	5/16" Lami	n/a	0.76	0.56	0.60
		Clr / Clr Lami	1/8"	3/16" Air	5/16" Lami	<1"	0.79	0.50	0.53
		SB60 / Clr Lami	1/8"	3/16" Air	5/16" Lami	n/a	0.68	0.32	0.53
		SB60 / Clr Lami	1/8"	3/16" Air	5/16" Lami	<1"	0.72	0.29	0.47
Designer Picture Window	Series 900	Clr / Clr	1/8"	5/16" Air	1/8"	n/a	0.63	0.70	0.74
		Clr / Clr	1/8"	5/16" Air	1/8"	<1"	0.64	0.64	0.67
		SB60 / Clr	1/8"	5/16" Air	1/8"	n/a	0.48	0.37	0.66
		SB60 / Clr	1/8"	5/16" Air	1/8"	<1"	0.50	0.34	0.59
	Series 975	Clr / Clr	1/8"	5/16" Air	1/8"	n/a	0.62	0.68	0.73
		Clr / Clr	1/8"	5/16" Air	1/8"	<1"	0.63	0.62	0.66
		SB60 / Clr	1/8"	5/16" Air	1/8"	n/a	0.48	0.36	0.65
		SB60 / Clr	1/8"	5/16" Air	1/8"	<1"	0.50	0.33	0.58
	Series 9000	Clr / Clr Lami	1/8"	5/16" Air	5/16" Lami	n/a	0.65	0.65	0.72
		Clr / Clr Lami	1/8"	5/16" Air	5/16" Lami	<1"	0.68	0.59	0.64
		SB60 / Clr Lami	1/8"	3/16" Air	5/16" Lami	n/a	0.55	0.36	0.63
		SB60 / Clr Lami	1/8"	3/16" Air	5/16" Lami	<1"	0.60	0.33	0.57

