

INSULATED GLASS (IG) UNITS

LOW-E GLASS

Special coatings reflect infrared light, keeping heat inside in the winter and outside in the summer. They also reflect damaging ultraviolet light, which helps protect interior furnishings from fading.

GAS FILLS

Energy-efficient products have either argon or krypton gases between the panes. These odorless, colorless, non-toxic gases are more dense than air, increasing insulation and improving thermal efficiency.

MULTIPLE PANES

Two or three panes of glass with an air or gas-filled space in the middle, insulate much better than a single pane of glass.

WARM EDGE SPACERS

A spacer keeps the glass panes the correct distance apart. Non-metallic spacers insulate pane edges, reducing heat transfer through the window.

Glass Strength

When ordering glass for windows, you can choose single, double or triple strength glass.

1_x

2.5mm or $\frac{3}{32}$ " panes
Available in annealed only

2_x

3mm or $\frac{1}{8}$ " panes
Available in tempered or annealed

3_x

5mm or $\frac{3}{16}$ " panes
Available in tempered or annealed

SUPER SPACER®

Between You and The Elements

Warm edge technology is more than just a low-conductive product that helps make insulated glass units more thermally efficient. The warm edge spacer is the seal that keeps the glass package in windows and patio doors from failing. Super Spacer is a dual-seal insulating glass system. This non-metal, structural foam spacer resists condensation, reduces energy costs, provides long-life durability and adds both comfort and value to your windows and patio doors.

Super Spacer is better able to ensure NFRC ENERGY STAR® certification by providing the best thermal conductivity, the lowest U-Factor among dual-seal systems and the best durability available in the industry. The all-foam formula blocks the heat escape path, improves sound absorption over traditional metal spacers and lasts up to nine times longer in durability tests than single-seal units. The all-foam formula reduces the effects of temperature changes, barometric pressure, wind load and glazing pressure, resulting in less seal failure and fewer stress cracks.



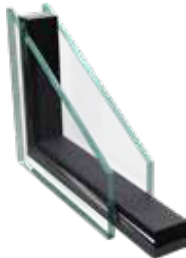
ENHANCED NOISE REDUCTION

The all-foam formula's excellent sound dampening properties reduce outside noise, even in industrial environments.



MYLAR 10-LAYER VAPOR BARRIER

The Super Spacer thermoset foam matrix is exceptional. Moisture is kept out, gas is kept in and conductivity is virtually nonexistent.



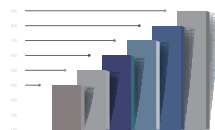
THE NO-METAL ADVANTAGE

Thermal efficiency through no presence of conductive metals is the Super Spacer hallmark.



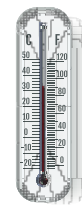
LASTING APPEARANCE

The Warm Edge Glazing System stands up to the natural bending and bowing from temperature changes, barometric pressure and wind load.



IMPROVED STENGTH

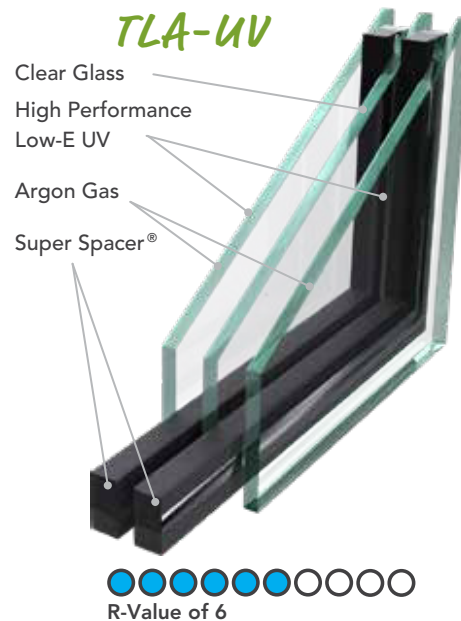
The P-1 test exposes units to 140°, 95-100% humidity and constant UV bombardment. Each week of testing is equal to one year of field use. Super Spacer survives with long term P-1 performance with a low seal failure history.



WARMEST EDGE

Super Spacer provides the warmest edge among dual-seal systems with up to +14.4° F / 8° C warmer temperatures at the edge of the glass.

COMFORTECH™ GLASS PACKAGES

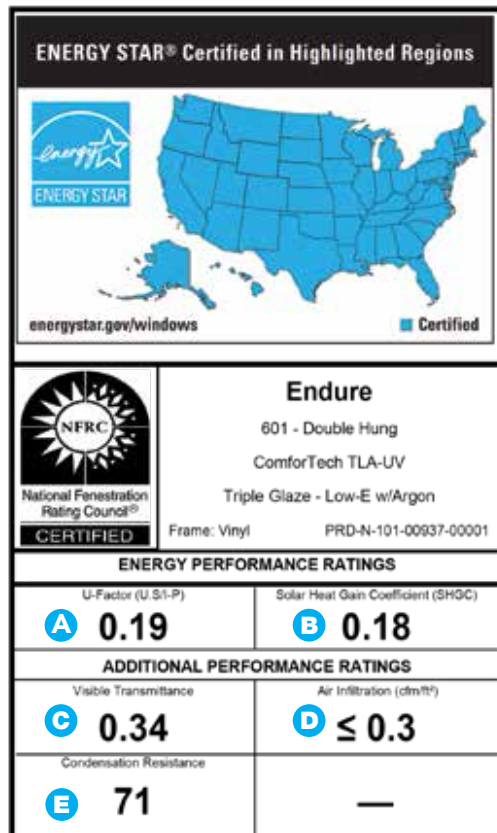


ENERGY STAR® CERTIFIED WINDOWS & PATIO DOORS

- 1 Are manufactured by an ENERGY STAR partner
- 2 Are independently tested, certified and verified by the National Fenestration Rating Council (NFRC)
- 3 Have NFRC ratings that meet voluntary energy efficiency guidelines set by the U.S. Environmental Protection Agency (EPA). Though ENERGY STAR does not require any specific technologies, certain product features are common in many certified products.

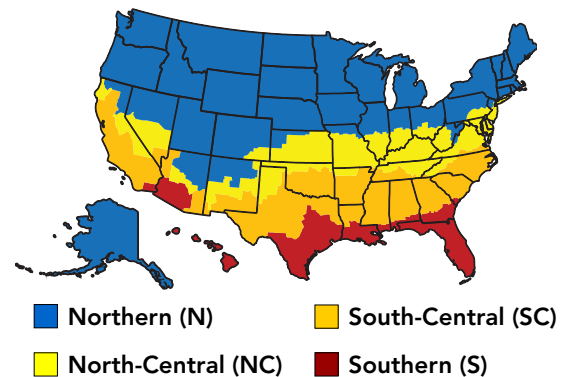
Visit energystar.gov to learn more.

UNDERSTANDING THE NFRC LABEL



ENERGY STAR REQUIREMENTS

Climate Zone	U-Factor	SHGC	
Northern	≤ 0.22	≥ 0.17	Prescriptive
	= 0.23	≥ 0.35	Equivalent Energy Performance
	= 0.24		
	= 0.25		
	= 0.26		
North Central	≤ 0.25	≤ 0.40	
South Central	≤ 0.28	≤ 0.23	
Southern	≤ 0.32	≤ 0.23	



U-Factor

Insulating value of the entire window system. Lower numbers reflect better insulating value.



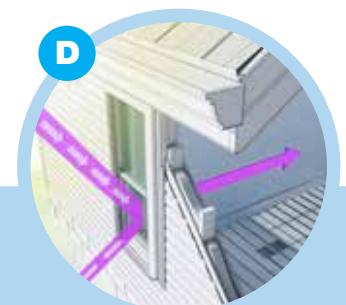
Solar Heat Gain Coefficient (SHGC)

Amount of heat from the sun passing through the glass. Lower numbers indicate glass is keeping heat from entering your home. SHGC is measured on a scale from 0 to 1.



Visible Transmittance

Amount of visible light passing through the glass. Higher numbers indicate glass is allowing more light to enter your home. Visible transmittance is measured on a scale from 0 to 1.



Air Infiltration

How much air is entering or escaping through the window. Lower numbers indicate air is kept from entering or escaping.

- E** **Condensation Resistance** – Amount of moisture it takes for glass to condensate when exposed to extreme interior and exterior temperature changes. Higher numbers indicate better resistance to condensation. Condensation resistance is scored on a scale of 0 to 100.