

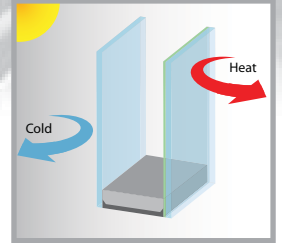


Supreme Windows Glazing Performance Data



Supreme Windows **Insulating Glass Units** are constructed with Super Spacer® Structural Foam Warm Edge Systems and Energy Star approved PPG and AGC glass to provide great thermal performance and long term durability.

Comfort and Energy Saving with SolarGuard and SolarPlus
Our Energy Star® certified **SolarGuard** and **SolarPlus** IG units help lower heating and cooling costs by either reducing solar heat gain or capturing free solar heat. With its high thermal insulation value, it creates a more cozy and comfortable environment inside your home.



20 YEAR LIMITED Warranty

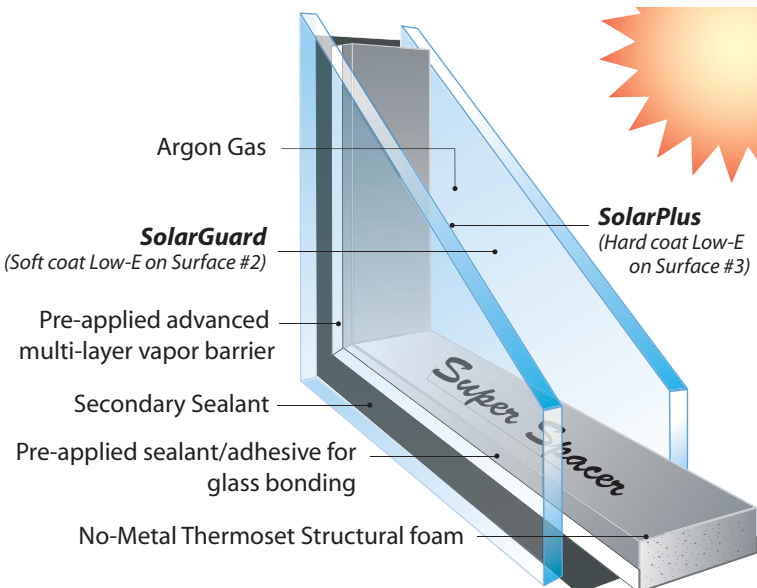
Supreme Windows provides a **20 Year Limited Warranty** on seal failure from the date of manufacture.

Glazing Options		R-Value (1/U-Value)	U-Value (BTU/h·ft²·°F)	Light Transmittance	Solar Transmittance	UV Transmittance	Solar Heat Gain Coefficient (SHGC)	Shading Coefficient
Dual	Clear (CL/CL)	2.08	0.48	81%	68%	58%	0.75	0.86
	SolarGuard (SB60/CL)	4.00	0.25	72%	35%	21%	0.38	0.44
	SolarPlus (CL/EPS)	3.48	0.29	74%	60%	44%	0.73	0.84
	Solar-5 (SB/EPS)	5.00	0.20	65%	31%	16%	0.36	0.42
	Bronze / Clear	2.22	0.45	62%	55%	32%	0.62	0.72
	Grey / Clear	2.22	0.45	56%	53%	32%	0.60	0.70
Triple	Clear (CL/CL/CL)	3.23	0.31	74%	58%	48%	0.67	0.77
	SolarGuard (SB60/CL/CL)	5.26	0.19	65%	31%	18%	0.35	0.40
	SolarGuard2 (SB60/CL/SB60)	7.69	0.13	58%	24%	7%	0.30	0.35
	SolarPlus (CL/CL/EPS)	4.83	0.21	68%	52%	36%	0.66	0.76
	SolarPlus2 (EPS/CL/EPS)	6.49	0.15	62%	45%	27%	0.62	0.71

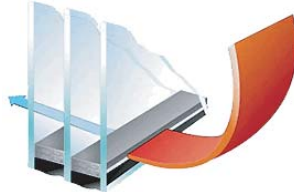
** All Values are measured at Center of Glass with 3mm Glass and 1/2" Air Space*

*** All R-Value and U-Values are based on winter condition*

Supreme Windows IG Unit Structure



- SolarGuard**
Solarban 60 soft coat Low-E Glass by PPG combined with Argon Gas.
- SolarPlus**
Comfort E-PS hard coat Low-E Glass by AGC combined with Argon Gas.
- Solar-5**
Double Glaze sealed unit combined 1 pane of SB60 and 1 pane of EPS, which reaches R-Value 5.
- Low-Emissivity (Low-E) Coating**
Microscopically thin, virtually invisible metal or metallic oxide layers deposited on a window glazing surface and sealed in an insulating glass unit to reduce the U-factor by suppressing radiative heat-flow through the window.
- Warm Edge Super Spacer®**
Super Spacer is an extruded, thermoset polymer structural silicone foam tape with integrally incorporated desiccants. Super Spacer's NO-Metal formula blocks the heat escape path and provides one of the best thermal performances in the industry.
- R-Value**
A measure of a product's ability to resist the transfer of thermal energy. A high R-value window has greater resistance to heat-flow and a higher insulating value. $R = 1/U$
- U-Value**
Overall coefficient of heat transmittance or heat flow measured in BTU/hr. Lower U-values indicate better insulating performance.
- Solar Heat Gain Coefficient (SHGC)**
The solar heat gain through the glass relative to the incident solar radiation.



Look for the ENERGY STAR® on our products. It shows that the product meets ENERGY STAR guidelines for energy efficiency.

SolarGuard vs. SolarPlus

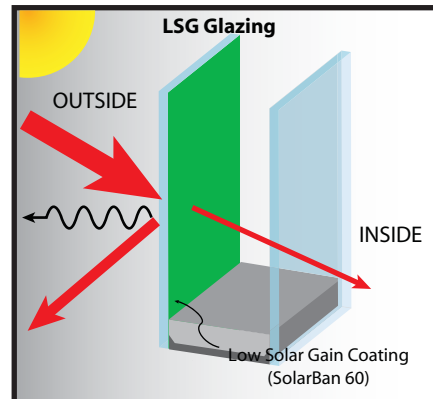
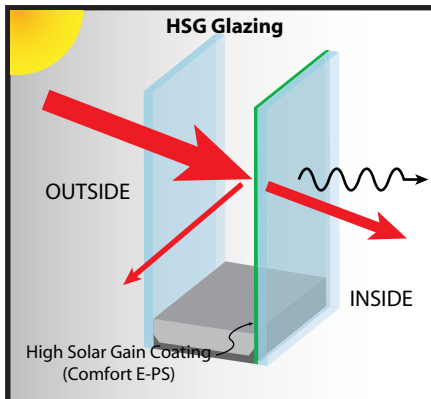
Which Low-E coated glazing will provide the best energy and cost savings?

Supreme Windows offers both high solar heat gain (HSG) "SolarPlus" and low solar heat gain (LSG) "SolarGuard" low-e coated glazing options to deliver the best energy and cost savings performance while reducing environmental impact. However, it is a challenging question to decide which low-e coated glazing - HSG (SolarPlus) or LSG (SolarGuard) to make the most return from your investment.

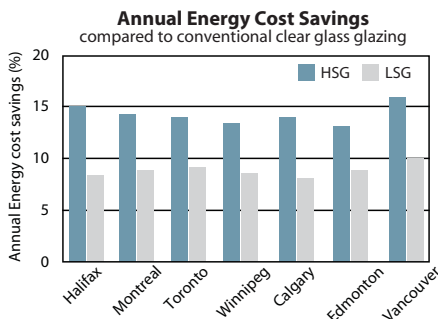
While both the LSG and HSG glazing provided energy cost savings over the conventional glazing, the use of HSG glazing produced the greatest savings for most Canadian locations.

The HSG glazing would be expected to produce savings of between 13% and 17% in combined heating and cooling costs for these Canadian locations, while the LSG glazing would be expected to produce savings of between 8% and 10% compared to the conventional glazing.

Savings depend largely on the type and cost of fuel used for heating, and the distribution of the window area by orientation. The higher the cost of heating, the greater the benefit of reducing the heating loads through the use of HSG glazing. However, LSG glazing was the most effective at reducing cooling loads during summer, when utilities are most likely to experience peak demands for electricity. An even more effective approach to reducing both heating and cooling energy using available window technologies may be to combine the use of HSG glazing with shading strategies to improve overall energy performance.

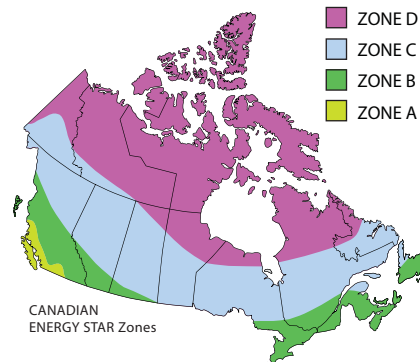


Low-e coatings is a thin metallic layer applied to the surface of the glazing to improve energy performance. It does so by reflecting the long-wave infrared radiation (heat) portion of the spectrum, while still allowing part of the solar spectrum to pass through it. Thus, heat is reflected back into the house in winter (or kept out in summer), and the glass remains "see-through." Only a small portion of the solar spectrum is visible light, and how the low-e coatings deal with the remaining "invisible" portion of the solar spectrum can vary. An LSG coating reflects most of the invisible solar spectrum, helping to keep solar gain to a minimum, while an HSG coating transmits most of the solar spectrum and its accompanying heat gain. The location of the coating also makes a difference: an LSG coating is typically located on the exterior pane of the window, to reflect heat out of the building; an HSG coating is typically located on the interior pane of the window, to reflect towards the inside



Supreme Windows Product Comparison
(Legacy Series, Dual Glazing, No Grill, Argon gas filled)

Glazing	Product	R-Value	SHGC	ER	ZONE
SolarGuard (LSG)	Picture	3.79	0.33	25	A, B
	Casement	3.81	0.25	21	A, B
SolarPlus (HSG)	Picture	3.44	0.54	34	A, B, C, D
	Casement	3.51	0.45	30	A, B, C, D



Key measures of window energy performance and the ENERGY STAR® program

The thermal performance of a window can be described in several different ways:
U-factor: a measurement of the rate of heat transfer through the window. A low U-factor is desirable since it indicates low heat loss in winter and low heat gain in summer. *The U-factor is the inverse of the R-value.*
Solar Heat Gain Coefficient (SHGC): a measurement of the fraction of incident solar radiation admitted through a window. It includes both radiation that is directly transmitted and radiation that is absorbed and subsequently released inward. The SHGC is expressed as a number between 0 and 1. The higher the window's SHGC, the more solar heat it transmits into the living space.
Energy Rating (ER) Value: a measurement of the window's overall energy performance based on the thermal transmission heat loss, solar heat gain performance and heat loss due to air leakage of the window. The higher the ER value, the better the energy performance of the window during heating season.

Source: "Selecting Residential Window Glazing for Optimum Energy Performance" at NRCan website



Supreme Windows (Calgary) Inc.
 4705 - 102 Avenue S.E.,
 Calgary, Alberta T2C 2X7
 Tel: (403) 279-2797 Fax: (403) 236-1681
<http://www.supremewindows.net>