

SUNGATE® 400

Passive Low-E Glass



Comfort in any Climate

Triple-IGU Features/Benefits Comparison (2.5mm glass thickness)

Building on decades of proven technology and performance, *Sungate*® 400 passive low-e glass is engineered to meet Canadian ENERGY STAR® requirements, as well as the increasingly rigorous demands for energy-efficient windows in northern U.S. climates.

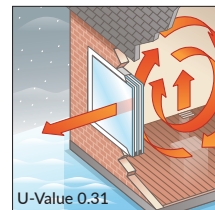
By providing excellent nighttime U-values, *Sungate*® 400 glass helps homes trap furnace heat in the winter more effectively than comparable insulating glass units fabricated with clear glass. *Sungate*® 400 glass also cultivates a feeling of warmth and comfort by transmitting high levels of daylight. In the spring and summer, *Sungate*® 400 glass promotes lower energy costs by diminishing demand for air-conditioning and artificial lighting.

Warmer in Winter

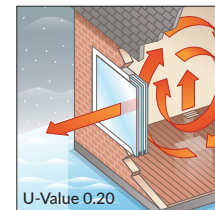
The winter nighttime U-Value (insulating value) of a triple-glazed insulating unit with *Sungate*® 400 glass on the third (3) and fifth (5) surfaces is up to **48% better** than the same triple-glazed unit made with clear insulating glass.

- Lower U-values mean higher performance
- Reduces furnace heat loss
- Helps reduce heating energy costs

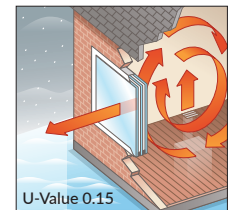
Standard
Clear Insulating Glass



Sungate® 400 (3)
Insulating Glass



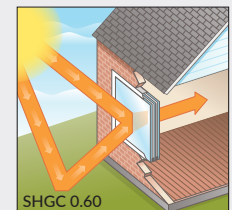
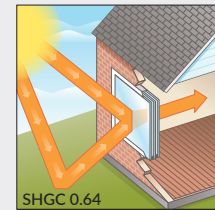
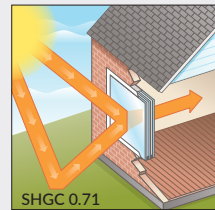
Sungate® 400 (3)/(5)
Insulating Glass



Warmer During Winter Daylight

The total solar energy transmitted through *Sungate*® 400 (3)/(5) glass is only **15% less** than that transmitted through a clear triple-glazed insulating unit.

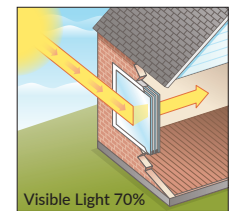
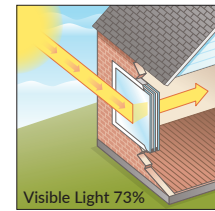
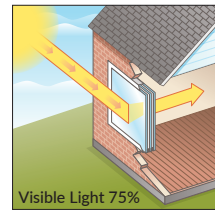
- Higher SHGC numbers mean more solar heat gain
- Helps keep interiors warmer
- Helps reduce heating energy costs



Transmits Visible Light/Appearance

Insulating units with *Sungate*® 400 (3)/(5) glass transmit about **93%** as much visible light as a clear triple-glazed insulating unit.

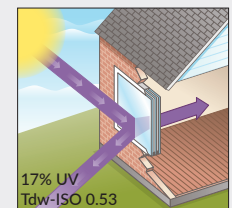
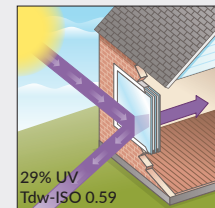
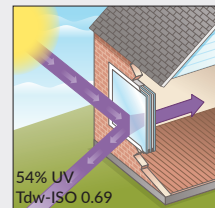
- Interior light from the sun not reduced dramatically versus clear glass
- Provides exterior appearance similar to clear glass



Fading Factors

While *Sungate*® 400 (3)/(5) glass blocks **69%** of damaging UV energy, it also blocks other contributors to fading – in all, **23%** better than a clear triple-glazed insulating glass unit.

- Helps protect interior furnishings, fabrics and carpets from fading



Note: Tdw-ISO represents potential fading damage caused by both UV and visible light. It is considered by the U.S. Department of Energy and the International Standards Organization (ISO) to be a more accurate barometer of fade resistance than UV transmittance alone. All comparisons are center of glass based on an insulating unit containing 3/4" insulating units; two 1/8" (3mm) glass lites and a 1/2" (12mm) air-filled space for the standard clear insulating glass and 90% argon gas-filled space for the Solarban® 70 insulating glass. Actual glass performance may differ due to glass thickness, gas fill and glass to frame ratio.

Solar Heat Gain Coefficient (SHGC) measures how well a window blocks (or shades) the heat from sunlight. SHGC is the fraction of solar radiation transmitted through a window, as well as the amount that is absorbed by the glass and reradiated to the interior.

Figures may vary due to manufacturing tolerances. All tabulated data are based on the National Fenestration Rating Council (NFRC) methodology, using the Lawrence Berkeley National Laboratory's Window 7.4 software.



Vitro customers use our products to manufacture Energy Star compliant windows, doors and skylights.



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SUNGATE® 400

Passive Low-E Glass



Comfort in any Climate

Triple-IGU Features/Benefits Comparison (3mm glass thickness)

Building on decades of proven technology and performance, *Sungate® 400* passive low-e glass is engineered to meet Canadian ENERGY STAR® requirements, as well as the increasingly rigorous demands for energy-efficient windows in northern U.S. climates.

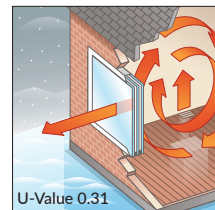
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Warmer in Winter

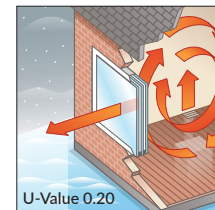
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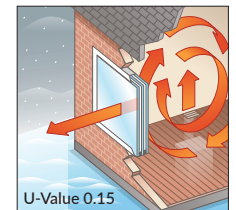
Standard
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Sungate® 400 (3)
Insulating Glass



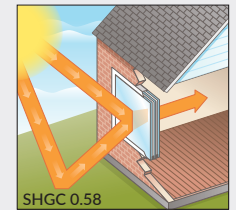
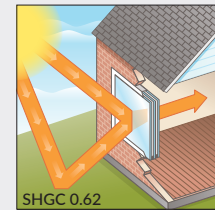
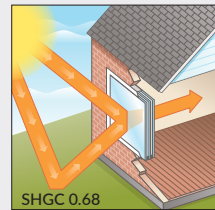
Sungate® 400 (3)/(5)
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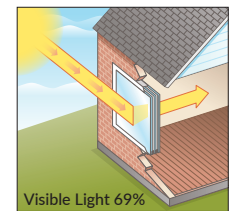
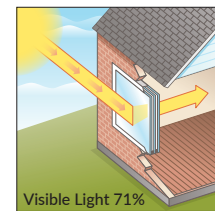
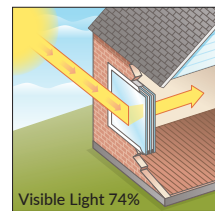
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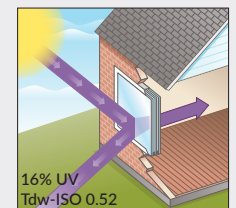
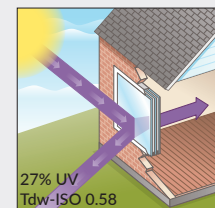
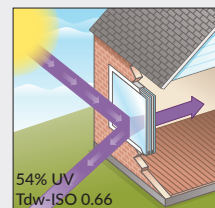
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- Provides exterior appearance similar to clear glass



Fading Factors

While *Sungate® 400* (3)/(5) glass blocks **70%** of damaging UV energy, it also blocks other contributors to fading – in all, **21%** better than a clear triple-glazed insulating glass unit.

- Helps protect interior furnishings, fabrics and carpets from fading



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