



GUARDIAN CLIMAGUARD® 71/38

HIGH PERFORMANCE LOW-E

Guardian Industries' residential glass ClimaGuard 71/38 provides energy-saving climate control combined with a uniform, neutral appearance that enhances the beauty and design of any home.

The Science of Comfort

Guardian's ClimaGuard 71/38 helps keep indoor temperatures comfortable regardless of outside elements. Homeowners save money on utility bills, all year long, in any climate.

Product Highlights:

- Windows with ClimaGuard 71/38 that are rated and certified by the NFRC can comply with EnergyStar® requirements for all climates in the country.
- Regulates environment, including keeping relative humidity at a comfortable and healthy level.
- Decreases fading transmission.
- Industry standard for color neutrality.
- Best-in-class mechanical and chemical durability, increased scratch resistance.
- First double silver low-E product with comprehensive non-edge deletion commitment.
- Fabricator support for low volume, heat-treated low-E with short lead time.
- Two heat treatable partner products for custom tempered requirements:
 - HT - comparable appearance, solar and thermal performance.
 - DHT - comparable appearance, where solar and thermal performance attributes are less critical.

Energy Benefits

The challenge.

Maintaining a comfortable indoor environment is a challenge when temperatures fluctuate, sometimes dramatically, throughout the day, between seasons, and across climate zones. According to U.S. Government estimates, an average household spends more than 40% of its annual energy budget on heating and cooling.

Keeping you warm when it's cold outside.

Choosing ClimaGuard 71/38 glass can result in significantly lower heating energy costs and an improvement in insulating value by as much as 50% over standard clear glass. In cold regions, this means that windows are no longer an energy loser to be avoided – increasing glazing area with high performance windows can have little or no effect on total energy use.

Keeping you cool when it's hot outside.

With ClimaGuard 71/38, solar heat gain and damaging radiation can be significantly reduced without sacrificing clear views and daylight. ClimaGuard 71/38 blocks up to 50% more unwanted solar energy than standard clear glass, and up to 40% more than even dark tinted glass resulting in lower air conditioning expenses and a more comfortable living environment. ClimaGuard 71/38 also blocks nearly twice as much harmful radiation as clear glass, extending the life of woodwork, carpets and furnishings, while still allowing plenty of natural sunlight to brighten interior spaces.

Keeping you comfortable in any climate.

In mild climates or in climates that enjoy mild seasons, southern and western elevations of a home can be exposed to significant unwanted solar heat gain. The result is a higher temperature in rooms that are exposed to the sun, while the rest of your home and the air outside remain at a comfortable level. ClimaGuard 71/38 greatly reduces this effect and helps maintain a uniform comfort level throughout the house.





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Durable-By-Design™

ClimaGuard 71/38 meets the highest application performance requirements in the most fabrication friendly package. By following the Durable-by-Design™ philosophy, Guardian has created the most scratch resistant, high performance low-E product available, so getting it done right the first time can become a habit instead of a goal. And because speed, flexibility and quality are so critical to earning and keeping customers, Guardian introduces a pair of heat treatable partner products that may be used by your local fabricator to meet custom tempered glass requirements.

PERFORMANCE COMPARISON OF TYPICAL GLASS PACKAGES (CENTER OF GLASS)					
Glass Package	Winter U-Factor (Insulating Performance) Air /Argon	SHGC (Solar Performance)	Visible Transmission (Daylight)	Visible Reflectance (Outdoor Glare)	Damage Weighted Transmission (Fading Energy)
Single pane, clear glass	1.04 /n/a	0.87	90%	8.1%	84%
Double pane, clear glass	0.48 /0.45	0.77	82%	14.7%	74%
High solar gain low-E	0.33 /0.29	0.65	75%	14.5%	65%
<i>ClimaGuard 71/38</i>	<i>0.29 /0.24</i>	<i>0.39</i>	<i>71%</i>	<i>9.8%</i>	<i>56%</i>

CLIMAGUARD 71/38 INSULATING GLASS PERFORMANCE (CENTER OF GLASS)							
Clear Glass, #2 Coated Surface	Emissivity	Winter U-Factor Air / Argon	SHGC	Visible Transmission	Visible Reflection	Damage Weighted Transmission	Ultraviolet Transmission
2.3 mm glass, 1/2" gap, 2.3 mm glass	0.027	0.29 / 0.24	0.39	72%	9.8%	57%	25%
3.0 mm glass, 1/2" gap, 3.0 mm glass	0.027	0.29 / 0.24	0.39	71%	9.8%	57%	24%
4.0 mm glass, 1/2" gap, 4.0 mm glass	0.027	0.29 / 0.24	0.39	70%	9.7%	56%	23%
5.0 mm glass, 1/2" gap, 5.0 mm glass	0.027	0.29 / 0.24	0.39	70%	9.6%	55%	22%



For ClimaGuard Residential Glass Sales, Contact:

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50 Forge Avenue
Geneva, NY 14456
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3801 S. Highway 287
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11535 E. Mountainview
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www.guardian.com



EnergyStar® is a partnership/program between the U.S. Department of Energy and manufacturers of windows, doors and skylights designed to help consumers identify energy efficient products. Windows with ClimaGuard 71/38 that are rated and certified by the NFRC can comply with EnergyStar® requirements for all climates in the country. Look for the EnergyStar® label to ensure you're getting the most energy efficient window for your climate zone. For more information regarding EnergyStar® go to <http://www.energystar.gov/opie/windowspec>.



The National Fenestration Rating Council (NFRC) administers a voluntary window rating/labeling program to produce window U-factor, SHGC and visible transmission ratings that can be directly compared. Guardian encourages you to look for an NFRC label to ensure accurate, comparable performance specifications. For more information regarding NFRC go to <http://www.nfrc.org>.



The EWC is a coalition of window, door, skylight and component manufacturers; research organizations; federal, state and local agencies; and others interested in expanding the market for high-efficiency fenestration products. Guardian Industries is a charter member of the Efficient Windows Collaborative. For more information regarding EWC go to <http://www.efficientwindows.org>.

CLIMAGUARD IS A TRADEMARK OF GUARDIAN INDUSTRIES

