



GUARDIAN CLIMAGUARD® 70/36

HIGH PERFORMANCE LOW-E

Guardian Industries' latest residential glass ClimaGuard 70/36 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 70/36 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 70/36 that are rated and certified by the NFRC can comply with EnergyStar® requirements for all climates in the country.
- Specifically designed to deliver maximum comfort and energy efficiency for climates that routinely experience intense heat.
- 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.
- 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 cool when it's hot outside.

ClimaGuard 70/36 has been specifically designed to keep interior temperatures comfortable when the outdoor temperature heads for triple digits. Homeowners are now able to maximize day lighting and enjoy the view, while keeping air conditioning costs to a minimum.

In the past it was necessary to design around the unwanted solar heat gain that was associated with East, South or West-facing windows. Common techniques included the use of dark window tints, after market window films, exterior solar screens, room darkening interior blinds, or even landscaping to block the sun (as well as the view). Unfortunately, often the simplest approach was to downsize or even eliminate windows completely.

With the advanced technology of ClimaGuard glass, it is possible to expand your window on the world without concern for interior comfort or your energy budget.

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 70/36 greatly reduces this effect and helps maintain a uniform comfort level throughout the house.

In addition to providing relief from the intense heat of the sun, ClimaGuard 70/36 also provides superior insulating performance during the cold nights of winter by efficiently reflecting the heat of your furnace back into the house.





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Durable-By-Design™

ClimaGuard 70/36 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)	Damaging Transmission (Fading Radiation)
Single pane, clear glass	1.11 /n/a	0.87	90%	8.1%	74%
Double pane, clear glass	0.49 /0.46	0.77	82%	14.7%	61%
High solar gain low-E	0.34 /0.29	0.65	75%	14.5%	65%
<i>ClimaGuard 70/36</i>	<i>0.29 /0.24</i>	<i>0.36</i>	<i>70%</i>	<i>11.0%</i>	<i>57%</i>

CLIMAGUARD 70/36 INSULATING GLASS PERFORMANCE (CENTER OF GLASS)							
Clear Glass, #2 Coated Surface	Emissivity	Winter U-Factor Air / Argon	SHGC	Visible Transmission	Visible Reflection	Damaging Transmission	Ultraviolet Transmission
2.3 mm glass, 1/2" gap, 2.3 mm glass	0.035	0.30 / 0.24	0.36	70%	11.0%	58%	31%
3.0 mm glass, 1/2" gap, 3.0 mm glass	0.035	0.29 / 0.24	0.36	70%	11.0%	57%	29%
4.0 mm glass, 1/2" gap, 4.0 mm glass	0.035	0.29 / 0.24	0.36	69%	10.9%	56%	28%
5.0 mm glass, 1/2" gap, 5.0 mm glass	0.035	0.29 / 0.24	0.36	68%	10.8%	55%	27%
6.0 mm glass, 1/2" gap, 6.0 mm glass	0.035	0.29 / 0.24	0.35	68%	10.7%	54%	25%



For ClimaGuard Residential Glass Sales, Contact:

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50 Forge Avenue
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11535 E. Mountainview
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www.guardian.com



EnergyStar® Windows 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 70/36 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 due to identical evaluation procedures. 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, 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

