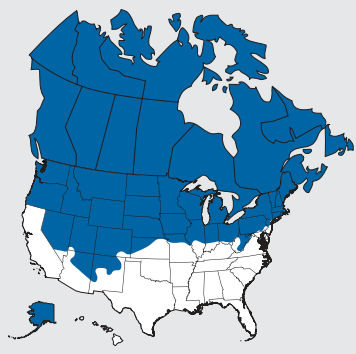




ClimaGuard 80/70

Allow the sun's warmth
into northern homes
in cold climate regions



Low-E that allows the sun's warmth into northern homes.
And heats up energy savings.

Nothing feels better in cold winter weather than inviting in the sun's warming rays through big, bright windows. Incorporating a passive solar heat concept, ClimaGuard 80/70 will provide a powerful level of insulation against harsh winters, while selectively inviting warm sunshine into the home as a free and sustainable heat source.

When it's sunny and cold outside, this glass keeps it sunny and warm inside

ClimaGuard 80/70 Low-E glass from Guardian is specifically designed to retain indoor heat and maximize solar heat gain in northern climate zones. U-factor measures the flow of heat through insulating or building material. The lower the U-factor, the better a window insulates. With a U-factor of 0.271 in an argon-filled double-glazed unit, ClimaGuard 80/70 minimizes heat loss through windows and helps maintain warmer room-side glass temperatures. The result is greater comfort and lower energy bills.

More natural light and more natural heat

Coupled with a low U-factor, 80/70 offers the highest light transmission of all ClimaGuard glass. The high light transmission and solar heat gain coefficient of 0.699 means the sun's heat makes its way through, too. The light and heat combine to brighten and warm a home naturally.

Options to meet your needs

ClimaGuard 80/70 is available in both an annealed form, as well as an AT (annealed and temperable) form, which allows the same piece of glass to be used in the annealed state or tempered for applications that require more strength. For window manufacturers, 80/70 AT represents a "single product solution" for simpler inventory management and lower operation costs.

ClimaGuard 80/70 at a glance

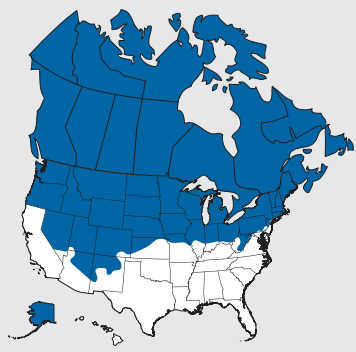
- Helps meet ENERGY STAR® requirements in all northern climate zones, including Canada.*
- Brightens homes with 81% of the sun's visible light.
- Warms homes naturally by letting in 70% of the sun's heat.
- Enables a triple-glazing solution with a high light transmission of 73%.
- Available in an annealed form, or as an AT (Annealed and Temperable) form.
- Easy to fabricate and available from all Guardian U.S. coating facilities.
- Available in full truckloads, partial truckloads or case quantities.

* In a broad selection of representative windows. Criteria is based upon total window performance, of which glass performance is a contributor.



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ClimaGuard 80/70 - high solar heat gain and a low U-factor for northern climates.

The performance data below demonstrates the effectiveness of ClimaGuard 80/70 and the various configurations used to achieve high performance results. Guardian ClimaGuard glass products can be used to construct ENERGY STAR® qualified windows.

| | Visible Light | | | | SHGC | U-Factor | | | |
|----------------------|---------------|-------------|------------|----------|-------|----------------|-------|-----------------|-------|
| | Trans | Reflect Out | Reflect In | UV Trans | | 1/2" Gap Argon | Air | 5/16" Gap Argon | Air |
| Double Glazed | | | | | | | | | |
| ClimaGuard 80/70 | 81% | 13% | 13% | 41% | 0.699 | 0.271 | 0.315 | n/a | n/a |
| Triple Glazed | | | | | | | | | |
| 80/70 + 71/38 | 64% | 16% | 13% | 16% | 0.453 | 0.129 | 0.164 | 0.173 | 0.222 |
| 80/70 + 80/70 | 72% | 17% | 17% | 26% | 0.580 | 0.141 | 0.171 | 0.183 | 0.230 |
| 71/38 + 80/70 | 64% | 13% | 16% | 16% | 0.359 | 0.132 | 0.165 | 0.174 | 0.223 |

Double glazed: 3.0mm clear glass, Air and 90% Argon/10% Air filled. 80/70 on #3 surface.

Triple glazed: 3.0mm clear glass, Air and 90% Argon/10% Air filled. Low-E coatings in the triple-glazed configurations are on the #2 and #5 surfaces respectively. Performance data calculated using LBNL Window 6, IGDB v.39.0.

ClimaGuard 80/70 vs. the competition

| Low-E Products - #3 Surface | Visible Light | | | | SHGC | U-Factor | |
|---------------------------------|---------------|-------------|------------|----------|-------|----------|-------|
| | Trans | Reflect Out | Reflect In | UV Trans | | Argon | Air |
| ClimaGuard 80/70 | 81% | 13% | 13% | 41% | 0.699 | 0.271 | 0.315 |
| AGC Comfort Select™ 63 | 79% | 12% | 12% | 38% | 0.623 | 0.261 | 0.307 |
| AGC Comfort Select™ 73 | 74% | 17% | 16% | 44% | 0.734 | 0.290 | 0.331 |
| Cardinal LoE ² -180™ | 79% | 15% | 15% | 29% | 0.685 | 0.260 | 0.306 |
| Pilkington Energy Advantage™ | 77% | 18% | 17% | 55% | 0.756 | 0.296 | 0.336 |
| PPG Sungate® 400 | 78% | 14% | 14% | 32% | 0.678 | 0.278 | 0.321 |

Double glazed: 3.0mm clear glass, 1/2" Gap, Air and 90% Argon/10% Air filled.

ClimaGuard Product Information

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