

Thermally insulating glass



ClimaGuard® A 1.0

Advanced thermal insulation

The increasing cost of energy, sustainability of natural resources and the reduction of harmful CO₂ emissions are at the forefront of political and environmental concerns today. The construction industry is constantly being challenged to significantly reduce the future energy requirement in buildings, the greatest energy loss being that of heat through the external envelope of a building.

In comparison with other construction materials, state-of-the-art insulating glass units provide excellent thermal insulation together with high transparency. This architectural benefit provides almost unlimited creative options in building design.

*“Optimum U value performance in a single stock Low E glass –
Comfort & energy saving combined”*



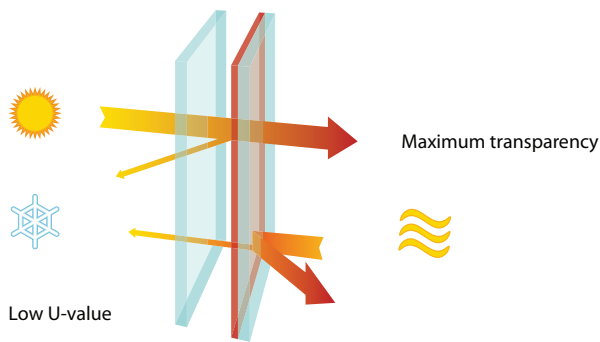
Product Description

GUARDIAN ClimaGuard A 1.0 is a soft coat Low E glass, created using the most advanced magnetron glass coating technology. As a single stock product, ClimaGuard A 1.0 can be used in either its annealed form or it can be toughened, which reduces stock commitment where annealed and toughenable versions would normally be required.

Features and Benefits

ClimaGuard A 1.0 provides the highest level of thermal insulation possible in standard double glazed insulating glass units. A U-value of 1.0 W/m²K borders on the limit of thermal insulation that is physically possible in a double glazing unit.

The neutral colour and the high light transmission provide a pleasant indoor environment with natural daylight. In a triple glazed unit with two panes of ClimaGuard A 1.0 surfaces 3 & 5, some of the lowest U values can be achieved, as low as 0.4 W/m²K.



GUARDIAN ClimaGuard® A 1.0 promotes well-being: The increased insulation results in a higher internal glass surface temperature, reducing the occurrence of condensation and uncomfortable cold spots and down-draughts close to the window.

Product Performance

Insulating glass configurations	Coating on surface	Gas filling *	Light Transmission %	Light Reflection %	Colour Rendering Index Ra	Solar Factor (g) EN 410 %	U-Value EN 673 (15K) W/(m ² K)
4 - 16 - 4	3	Argon	72	21	97	54	1.0
4 - 16 - 4 - 16 - 4	3 & 5	Argon	58	29	96	42	0.5
4 - 12 - 4 - 12 - 4	3 & 5	Krypton	58	29	96	42	0.4

*Gas filling rate 90%

All performance data are nominal values and are subject to production tolerances.

Disclaimer: The information contained in this publication is a general description of the product ClimaGuard® A 1.0 and GUARDIAN hereby disclaims all liability arising from any inaccuracy in or omissions from this publication and all the consequences of relying on it. It is the responsibility of the users of this information to ensure that the intended application of ClimaGuard® A 1.0 is appropriate and complies with all relevant laws, regulations, standards, codes of practices and other requirements. It is recommended that fabricators of ClimaGuard® A 1.0 consult the Processing Guidelines provided by GUARDIAN for specific instructions on how to handle, store, treat, process, use and install ClimaGuard® products successfully. The Processing Guidelines are provided with the first delivery of ClimaGuard® A 1.0 or can be obtained directly from GUARDIAN.