

THERMAL INSULATING GLASS

ClimaGuard® 1.0

ADVANCED THERMAL INSULATION

- **Exceptional thermal insulation**
- **Superior transparency**
- **Neutral appearance**
- **Active climate protection**

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.



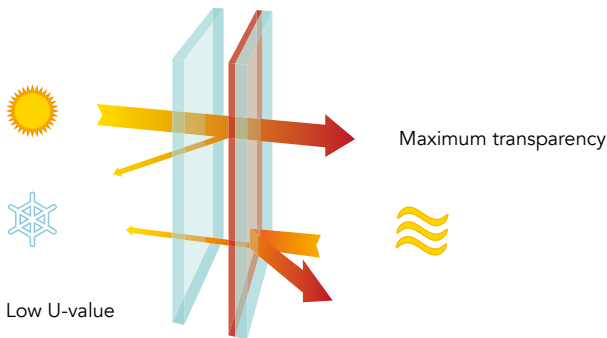
PRODUCT DESCRIPTION

GUARDIAN Climaguard® 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 and actively promote well-being.

Climaguard® 1.0 is ideally suited to both new build and restoration projects.

FUNCTIONS AND BENEFITS



Climaguard® 1.0 is the preferred choice if requirements such as thermal insulation, energy management and comfort are desirable.

GUARDIAN Climaguard® 1.0 provides optimum thermal insulation: A double glazed insulating glass unit with a U-value of 1.0 W/m²K - uniquely combined with high light transmission and a neutral appearance.

GUARDIAN Climaguard® 1.0 has intelligent energy management and environmental protection: A solar factor (g-value) of 53% ensures efficient utilisation of free solar energy, corresponding in a reduction in heating costs and a direct contribution to climate protection by a reduction in CO₂ emissions.

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

TECHNICAL DATA / PERFORMANCE TABLE

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	70	20	97	53	1.0
4 - 16 - 4 - 16 - 4	2 + 5	argon	56	29	95	37	0.5
4 - 12 - 4 - 12 - 4	2 + 5	krypton	56	29	95	37	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® 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® 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® 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® 1.0 or can be obtained directly from GUARDIAN.