

THERMAL INSULATING GLASS

ClimaGuard® nrG

Energy efficiency at its best

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 future energy requirements in buildings, the greatest energy loss being 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.

- **Exceptional thermal insulation provides energy saving benefits due to minimum heat loss and excellent indoor environment quality**
- **Optimum transparency: allows the maximum use of natural daylight**
- **Excellent visual neutrality: clarity of glass enables flawless colour rendering**
- **Ultimate solar gain: effective contribution of solar energy**



PRODUCT DESCRIPTION

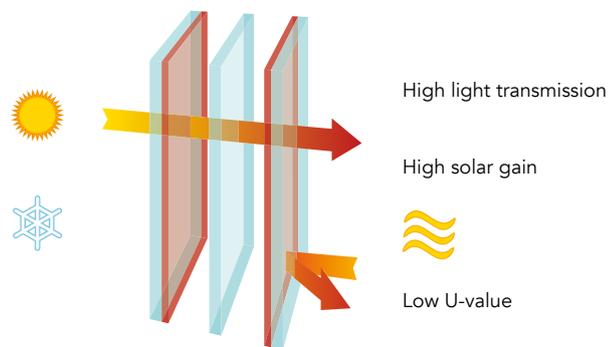
Triple glazed insulation glass units, configured with a combination of ClimaGuard® nrG and ExtraClear™ float glass, have an outstanding visual performance. The neutrality of the high light transmission and reflection are, in fact, comparable to that of an ordinary double glazed insulating unit.

FUNCTIONS AND BENEFITS

ClimaGuard nrG offers the ideal balance between low U-value, high transparency, colour neutrality and solar heat gain.

The superior thermal insulation minimises cold down draughts, maintaining comfort even when you are close to the window, and prevents condensation from forming on the inner pane.

ClimaGuard nrG is the perfect solution for use in low energy buildings and Passive house dwellings. Triple glazed insulating glass unit configurations, consisting of ClimaGuard nrG and ExtraClear™ float glass, have been certified as a "passive house component" by Dr. Wolfgang Feist of the Passivhaus Institute, Germany.



With this innovative product, it becomes possible to achieve excellent performance data using the cost-efficient ExtraClear™ float glass as a standard material, versus special low-iron glasses.

This allows the consumer an opportunity for financial savings, while maximizing energy efficiency and ensuring an active contribution to the protection of the environment.

TECHNICAL DATA

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/(m²K)
4-12-4-12-4	2 + 5	argon	73	16	96	62	0.8
4-14-4-14-4	2 + 5	argon	73	16	96	62	0.7
4-12-4-12-4	2 + 5	krypton	73	16	96	62	0.6
4 - 16 - 4**	3	argon	81	13	98	74	1.3

* Gas filling rate 90%

** In a double glazed insulating glass unit the product offers outstanding values regarding transparency and colour neutrality.

The performance values shown are nominal and subject to variations due to manufacturing tolerances.

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