ESG Solarchromic™

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ESG Solarchromic™
Climate Control Glass

With its electronically controllable tint, ESG's **Solarchromic**™ Climate Control Glass not only reduces a building's energy consumption, it is also an attractive design feature for any window, conservatory, velux or rooflight. Available in manual or automatic control, ESG **Solarchromic**™ panels can be controlled individually or as a multiple panel system.

Digitally responsive, ESG **Solarchromic**™ Climate Control Glass limits solar heat gain whilst adjusting the amount of glare. Reducing the need for blinds, it helps to create a more comfortable, stylish and sustainable glazed living or working space.

ESG's **Solarchromic**™ is not simply a tinted glass. The intelligent glazed system uses electrical impulses to adopt new tones, instantly controlling the transmission of heat and light into a building. As an ideal adjustable solar controlled glass for windows, conservatories, loft conversions and glass roofs, it provides maximum comfort whilst saving a substantial amount of energy.

ESG **Solarchromic**™ is available in sizes up to 1350x3300mm, custom shapes and sizes, and can be combined with any of ESG's range of LCD privacy, security or fire resistant glass products for a total glass solution.

Benefits to our Customers

- Total glass solution with ESG Controllable Intelligent Glass Systems
- Full technical support and backup in the UK
- Supply and installation service
- Electrical systems supply and fit service available
- Solutions for a wide variety of applications
- UK and European-wide delivery service on ESG's own fleet
- Crating and shipping export service

Unique Features

- Creates a comfortable environment so that you can fully utilise your conservatory or glass room.
- Low energy consumption (only the change in transmittance uses electrical energy)
- Outstanding heat control in summer and a pleasant room climate
- Shading by dimming the glass instead of mechanical blinds or sunshades
- Significant reduction of glare and an unobstructed view to the outside
- Costs for maintenance of shading systems can be saved
- Reduction in air conditioning costs
- Effective use of solar heating during winter
- Ideal component for "smart buildings"
- ESG **Solarchromic**™ wellness windows - the blue colour has a positive effect on performance

Applications

- Conservatories, orangery roofs, windows
- Skylights/Velux
- Rooflights
- Facades

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CLIMATE CONTROL GLASS

Technical Specification

Glass Colour:
Blue

Maximum pane size:
1350mm x 3300 mm

Minimum pane size:
0.2 m^2

Electrical power needed to change the setting approx:
1.5 W/m^2

Supply voltage for the control units:
24 V

Time needed to switch between the lightest and most intensive colouration approx:
15 Min

Warranty:
5 years

Optional control:
EIB/KNX, LON, LCN,VI, CIONE, BACnet, Elsner

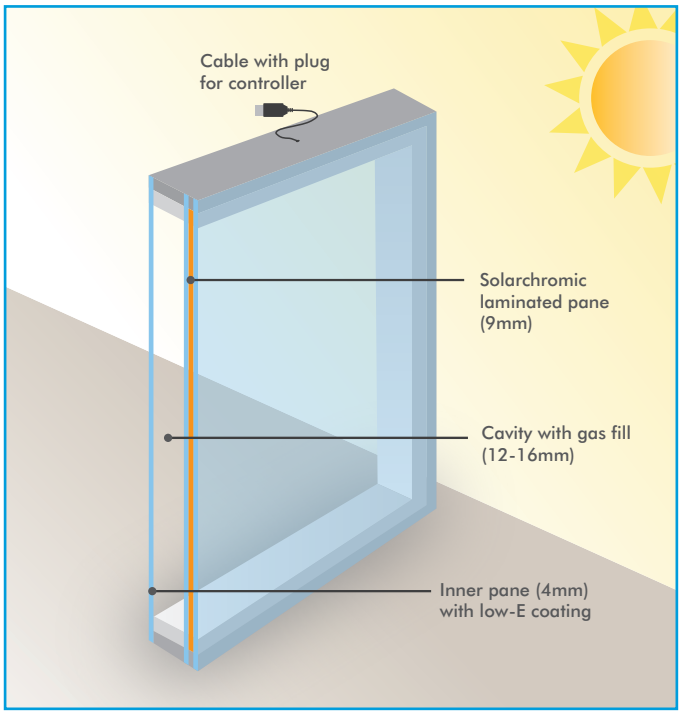
Spectrophotometric Data Calculations

ESG Solarchromic™ 1)	State of Glazing	Solar Heat Gain Coefficient SHGC [%]	U_g-value Ug [W/m^2K]	External Light Reflection R_L [%]	Spectral Selectivity $S^*=T_{L\ max}/SHGC_{min}$	Light transmission T_L [%]
Double glazing unit (standard IGU)	clear	40	1,1	10	4,6	55
	dark	12		8		15
Triple glazing	clear	33	0,5[1]	12	5,3	48
	dark	9		8		13

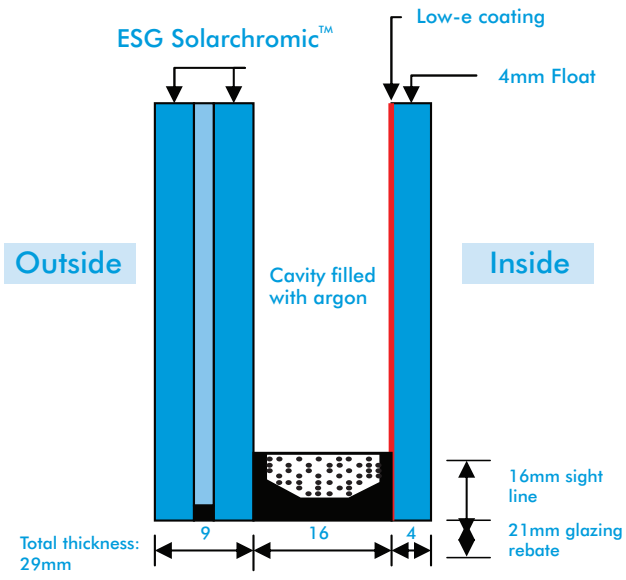
The data provided is based on our finding to date and vary depending on the project and product

1) With Krypton-Gasfilling

Typical Unit Construction



Example Construction



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