EControl-Glas

ECONTROL®

SWITCHABLE SOLAR CONTROL GLAZING

TECHNICAL SPECIFICATIONS

ECONTROL

CE

ECONTROL is a switchable glazing with variable light and energy transmission.

AREA OF APPLICATION

ECONTROL may get installed in vertical and horizontal glazings in building construction (eg. post and rail construction, window facades, overhead glazings, atriums). Installation supports the use of conventional frame materials (eg. aluminium, wood, wood-aluminium and PVC).

LIGHT TRANSMISSION, SOLAR HEAT GAIN COEFFICENT INSULTING COEFFICENT

See ECONTROL® brochure.

SPECTRAL SELECTIVITY

ECONTROL provides adjustable solar protection; its spectral selectivity is therefore defined as the ratio of light transmission in the clear state to the energy transmission (SHGC) in the dark state ($S^* = T_{L,\,max} / SHGC_{min}$). ECONTROL has a spectral selectivity greater than 5.

SOUND PROTECTION

The standard insulating glass composition with an argon-filled 4mm inner pane provides a sound protection value of R_w 35 dB (as per DIN EN ISO 717-1). Numerous tests of sound protection available.

GEOMETRY

ECONTROL panes may be rectangular or one of several irregular shapes (please see shape catalogue).

GLASS DIMENSIONS

Maximum 1350 x 3300 mm

POWER CONSUMPTION

ECONTROL panes only require electrical power during changing of the transmission state. One complete switching cycle takes about 15-20 min and requires less than 2 Wh/m². The power consumption of one controller during switching is less than 10 W.

POWER SUPPLY

The controller requires a 24 V DC source. The ECONTROL pane itself is supplied with less than 5 V DV.

FRAME PROFILE

ECONTROL fits into conventional IGU-frames, preferably with dry sealing. In case of wet sealing only silicon-free materials are permitted (please contact EControl for further information). On Request is also Structural Glazing or a weather sealing possible.

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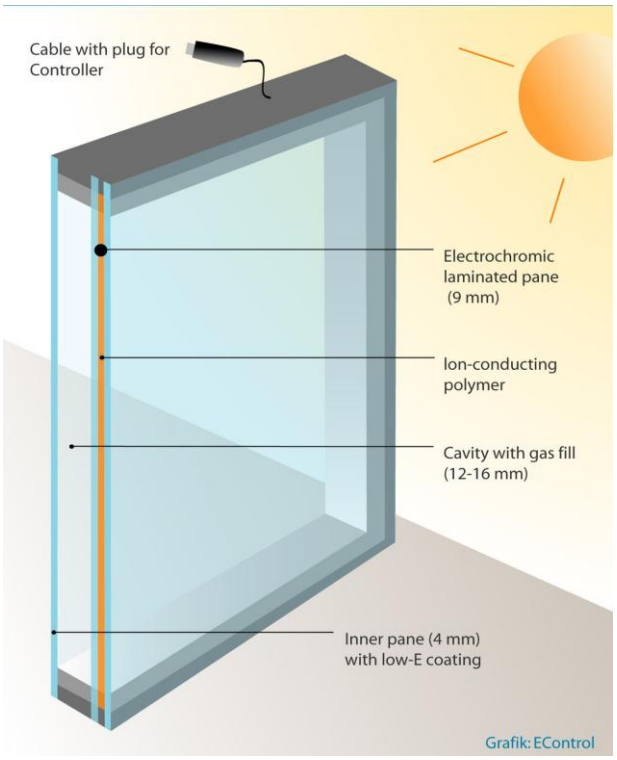
CABLE CONNECTION

The ECONTROL pane cable extends from the sealing of the IGU (on one of the short edges, usually at the top) and is connected to the controller cable inside the window frame.



STANDARD DOUBLE GLAZED UNIT (DGU)

The standard DGU is 29 mm thick, consisting of 9mm electrochromic pane (outer surface), 16 mm cavity and 4 mm inner pane with low-E coating.

TRIPLE GLAZING

The standard triple glazing is 41 mm thick, with 9mm electrochromic pane (outer surface), 12 mm cavity, 4 mm middle pane with low E coating, 12 mm cavity and 4 mm heat-insulating-coated inner pane (low-E coating).

VISUAL QUALITY, SWITCHING CHARACTERISTICS

You can find information for the visual quality of the ECONTROL® glazing in the ECONTROL® “Guidelines for assessing the visual quality of ECONTROL® glazing”. You find the guideline on our homepage. If you need further information please do not hesitate to contact us.

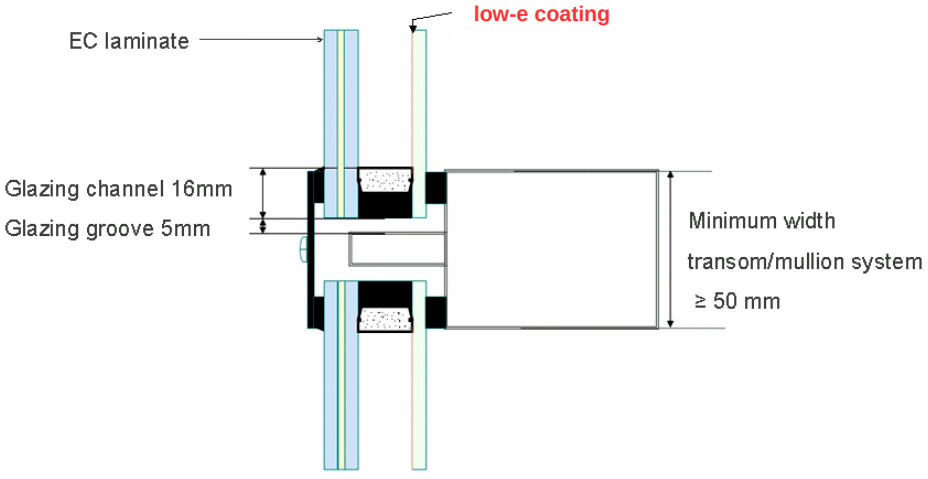
WEIGHT

32 kg/m² for standard double glazing
43 kg/m² for standard triple glazing

FRAME DEPTH

A minimum depth of 21 mm is required for insertion of the ECONTROL pane into the frame profile (16 mm for the ECONTROL pane and 5 mm to allow for the electrical cable).

Please Note: The frame construction must be designed in such a way that it including the sealing lip covers the edge of the spacer. (Spacer Tolerances: ± 2 mm)



Standard spacer colour: black