Switchable Film Black

Item no. 1803082

Product description

Electrically switchable film (PDLC, “smart film”) for retrofitting to existing glass by self-adhesive application. Without power the film is milky black and opaque; with power it turns clear in under 40 ms. It is switched by light switch, wireless remote control or smart home system. The film is CNC-cut to the millimetre, and the cable connections are placed on the edge of your choice.

Optical values

Property	On (clear)	Off (milky)
Visible light – transmission	> 12 %	> 20 %
Parallel light* – transmission	12 %	1 %
Haze	< 6 %	> 95 %
Viewing angle**	150°	–
UV protection	> 95 %	> 95 %

Electrical data

Operating voltage	65 V AC – always alternating voltage from the Powerbox (input 230 V AC)
Saturation voltage	below 32 V AC
Switching time	below 40 ms (on and off)
Power consumption	approx. 5 W/m², only in the clear state; designed for continuous operation
Powerbox	select according to the total area of all films switched together (see Powerbox data sheet)

Material and use

Material thickness***	360 µm (0.36 mm)
Maximum size	180 × 500 cm per film; larger areas are divided (joint approx. 2 mm, seal with neutral-curing silicone)
Operating temperature	−20 °C to +60 °C
Storage temperature	−10 °C to +30 °C
Service life	over 50,000 operating hours (switched on)
Application	dry (without water), indoors

⚠ **Power supply only via our Powerboxes:** Please note that our switchable films are designed exclusively for operation with the power supplies (Powerboxes) intended and approved by us for this purpose. Warranty and guarantee claims for damage, malfunctions or failures connected with the use of a power supply not provided or approved by us are excluded.

* Parallel light: incident light rays with the same direction. ** Viewing angle: angle at which the clear film appears transparent. *** 1,000 µm = 1 mm. Values as stated by the manufacturer. Planning, connection and Powerbox selection (German): www.westerwald-folien.de/schaltbare-folie-technische-infos

Questions about the film or its application?

Phone +49 2624 185 97 61 · Mon–Thu 9 am–3 pm, Fri 9 am–1 pm (German time)
info(at)westerwald-folien.de · Product in our online shop (German): scan QR code