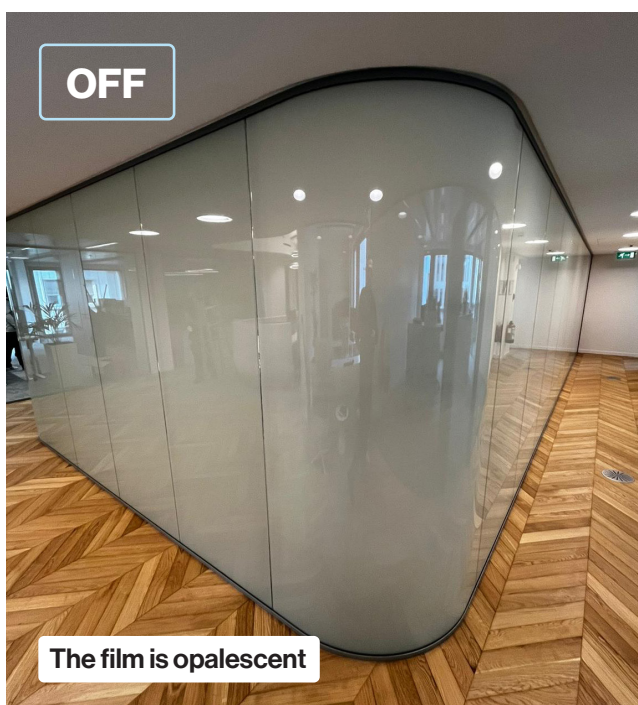




G FILM

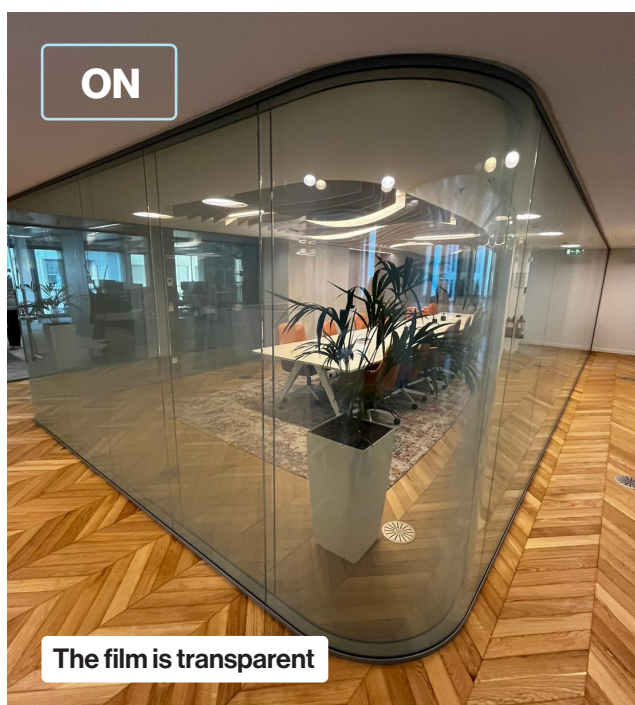
CONTROL OPACITY

OFF



The film is opalescent

ON



The film is transparent



Want to discover more?

Watch our installation video

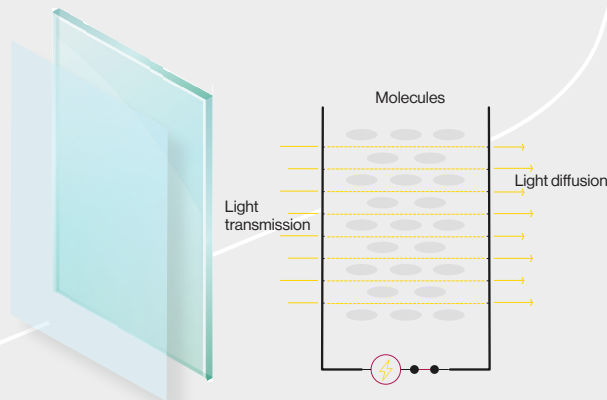
 **SOLAR SCREEN**
SMART FILM SOLUTIONS

FUNCTIONALITY

• **E-Film** is a high-tech PET film that allows you to activate or deactivate the opacity of glass surfaces as desired. It provides discretion and on-demand privacy.

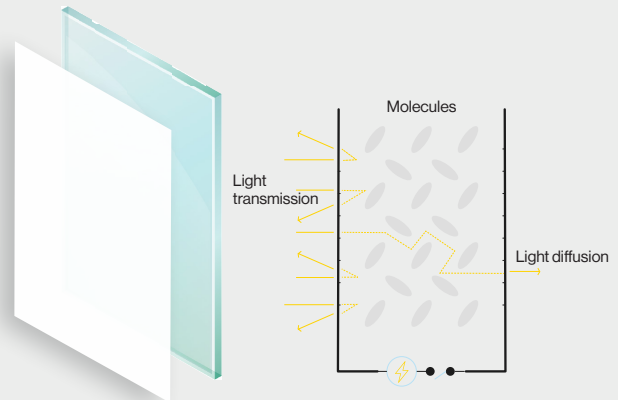
E-Film has electro-optical properties and is made up of liquid crystal polymer molecules. This film can switch from

a **transparent state (ON)** to an **opaque state (OFF)** via a remote control or a switch. The orientation of liquid crystal molecules determines the **film's opacity**. This process is activated by the application of an electric field.



ON

In **ON** mode, the liquid crystal molecules align parallelly. Light transmission is high, and the film becomes transparent.



OFF

In **OFF** mode, the liquid crystal molecules are arranged randomly. Light diffusion is softer, and the film becomes opalescent.

ADVANTAGES :



DISCRETION

Decide whether to be seen or not. The effect works both day and night.



INSTALLATION

E-Film can be applied to any smooth glass surface. The material is also flexible.



CONTROL

Switch from transparent to opaque glass instantly using a remote control or a switch.



ENERGY

Its use requires very low energy consumption.



DURABILITY

Production undergoes quality control to ensure reliable longevity.



REINFORCES GLASS

When applied to glazing, the film helps hold it together in case of breakage.



COMBINATION

E-Film is compatible with solar or security films.



VIDEO

The opaque surface can serve as a projection screen.



UV PROTECTION

Blocks 99% of UV rays.

APPLICATION

Applying **E-Film** requires **meticulous cleaning** of the surface where it will be installed. The surface must be free of any dust, grease, or dirt. **Crystal Antistatic Spray (600-ATS)** is particularly effective in reducing static on the glass and preventing dust, which is critical for the result.

We strongly advise against **direct sun exposure** (installation on facades). When installing two or more **E-Film** panels side by side on the same glass, we recommend leaving a gap of 2 to 2.5 mm between each film panel.

This helps **prevent an electrical short circuit** that could damage (corrode) the film edges.

E-FILM

DISCOVER
OUR WEBINAR



WE RECOMMEND:



GLOVES

It is best to wear **antistatic gloves** throughout the process to avoid grease marks.



PREPARATION

To ensure the surface is clean and free of dust before applying **E-Film**, we recommend using **Crystal Antistatic Spray (600-ATS)**.



APPLICATION

E-Film is a dry application product. Never apply it wet, as this would permanently damage the film.



PRESSURE

E-Film should never be installed in situations where it may be subjected to pressure or mechanical stress.

Example: Unlike other glazing films, this film should not be placed under a frame, whether made of aluminum or plastic.



PROTECTION

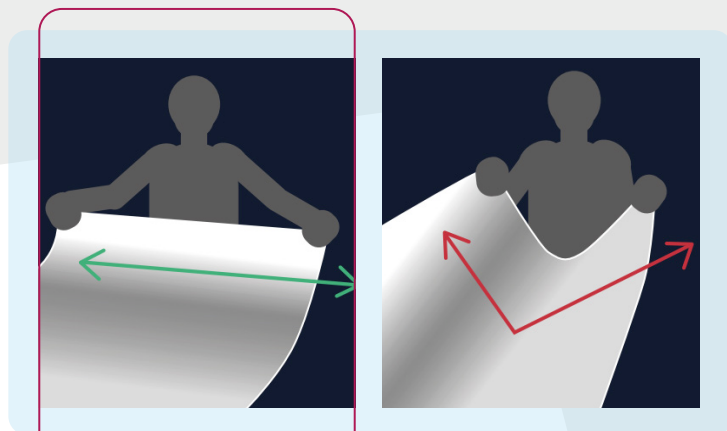
To minimize the risk, do not remove the top liner until the installation is complete.



MAINTENANCE

Wait **30 days** before cleaning the surfaces once **E-Film** has been applied. Use non-abrasive cleaning solutions and a microfiber cloth for cleaning.

HANDLING:



- Never fold or bend the **E-Film**.
- Always keep the film flat and straight.
- Be particularly careful with the edges when handling the film.

TECHNICAL INFORMATION

VERY LOW HAZE: 2% (compared to 4% on average in the market)

THICKNESS: 540 microns

DIMENSIONS: Custom-made (max width 1830mm)

CURRENT: 0,08 A/m²

ELECTRICAL VOLTAGE (OUTPUT): 60 V (AC 50 / 60 Hertz)

ELECTRICAL CONSUMPTION: - 7 Watts / m²

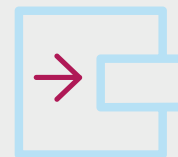
RESPONSE TIME: <20ms

LIFESPAN: >50,000 hours (avoid continuous use for more than 24 hours)

WARRANTY (film and electrical accessories): 2 years



DISCOVER OUR DIFFERENT TINTS



SECTORS OF APPLICATION

The E-Film is perfectly suited for any use or sector:

RETAIL:

Windows, events, projection rooms, beauty salons, etc.

GOVERNMENT:

Convention centers, town halls, prefectures, etc.

BUSINESSES:

Offices, meeting rooms, coworking spaces, open spaces, banks, hotels, etc.

PRIVATE INDIVIDUALS:

Windows, sliding doors (note: do not install black or grey E-Film).

HOSPITALS:

Operating rooms, private medical practices, emergency rooms, etc.

	WHITE	GRAY	BLACK
VISIBLE LIGHT TRANSMISSION	On : 82% Off : 19%	On : 51.7% Off : 11%	On : 8.4% Off : 1%
UV ABSORPTION	99%	99%	99%
INFRARED REJECTION	>99%	>99%	>99%

ELECTRICAL NOTICE

The transformer can switch the film from clear to opaque via a switch, wireless remote control, reliable output switching, long switch lifespan, with surge protection, overload protection, and overcurrent protection. It can be used in a wide range of applications. The transformer is small, lightweight,

and easy to install, significantly improving the intelligence level of the smart glass controller.

STANDARD TRANSFORMER PARAMETERS

(OTHER OPTIONS AVAILABLE UPON REQUEST)

Product Type: Safety and isolation transformer :

15W = 2 m²
30W = 4 m²
50W = 6 m²
100W = 12 m²

Input Voltage: 230 V AC single phase, terminal(s): N-L1

Output Voltage: 46VAC/60VAC

Secondary Winding: Single

Protection Cover: Yes

Operating Ambient Temperature: -20...50°C

REMOTE CONTROL PARAMETERS

Type : Contrôleur sans fil

Frequency: 433 Mhz

Battery Type: Type A23 - 12V DC

Function : On/Off

Remote Control Range: >25m

Size: 120x46x14mm

Weight: 80g

ENVIRONMENT

Product Certifications: CE - EMC

Standards: EN 62479

Dielectric Strength: 2000 V between winding and earth

Protective Coating: TC

Ambient Temperature for Storage: -40...80°C

Surge Category: Class I compliant with VDE 0106-1

IP Protection Rating: IP21

TRANSFORMER ADDITIONAL INFORMATION

Input Voltage Limits: 210...250 V

Network Frequency Limits: 47...63 Hz

Input Voltage Tolerance: +/-15 V

Efficiency: 98%

Material : 100% copper

Power Dissipation (W): 1W, 2W

Sustained Output Surge: 4% (no load, hot)

Maximum Voltage Drop at Nominal Load: 0.50%

No-Load Losses: 0,5W (against overloads)

Output Protection Type: Overload, surge, and short-circuit protection technology.

Connections - Terminals: *For input connections: screw terminals, connection capacity: 2mm² AWG 14
For output connections: screw terminals, connection capacity: 0.2mm² AWG 23

Marking: CE

Mounting Mode: Horizontal, vertical

Operating Altitude: 3000 m

Electrical Insulation Class: Class B

Sizes and Weight:

15W - 75*25*125mm(W*D*H mm) 0.35kg
30W - 88*30*150mm(W*D*H mm) 0.8kg
50W - 110*46*179mm(W*D*H mm) 1.2kg
100W - 110*46*179mm(W*D*H mm) 1.6kg

WARRANTY

Warranty: 2 years

ELECTRICAL NOTICE



STANDARD TRANSFORMER PARAMETERS

(Other on request)

POWER: 200 W

INPUT: 220-240VAC or 110VAC

OUTPUT: >48V / 60V (recommended)

FREQUENCY: >45-70Hz

OUTPUT CURRENT: 3A

SIZE: (200W); 255*158* 60mm; 5,7 kg

REMOTE CONTROL PARAMETERS:

BATTERY (not included) : 1A 23 / 12V battery

FUNCTION: ON / OFF (dimmer optional)

STANDBY POWER CONSUMPTION:
≤ 0,04 mW

CONTROL DISTANCE: maximum 25 meters
(line of sight)

FREQUENCY: >45-70Hz

SIZE: 120x46x14mm

NOT INCLUDED:

Electrical cable - 1.5mm diameter

Electrical sheath

Connections (wago)

COMPOSITION

1 TRANSFORMER

1 REMOTE CONTROL (battery not included)

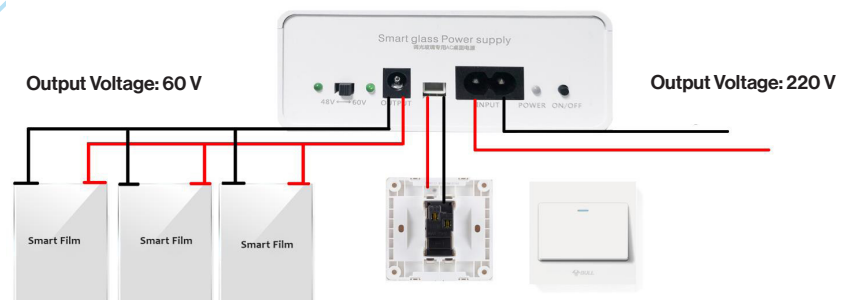
1 POWER SUPPLY CABLE 220V (transformer)

1 OUTPUT CABLE 60V-(E-Film)

1 WALL SWITCH CABLE
(to specify: as a replacement for the remote control)

OPERATING CONDITIONS

OPERATING TEMPERATURE: -20°C à 60°C



Multiple E-films can be connected to the same transformer

PRECAUTIONS

HOW TO INSTALL THE REMOTE CONTROL?

Additional remote control installation

- 1 - Check that the wires are properly connected at both ends.
- 2 - Make sure your battery is not low and replace it if necessary.
- 3 - Turn off the transformer.
- 4 - Press and hold the top and center buttons together, then turn on the transformer.
- 5 - Release the buttons immediately once the film becomes transparent.
- 6 - Everything is connected.



Want to know how to use
E-Film with your
smartphone?

Watch our installation tutorial

NECESSARY PRECAUTIONS

Required measures before installation to ensure optimal functioning.

SAFETY:

The transformer must be kept away from any heat or water source. Ideally, the transformer should be installed in a recessed box connected to the electrical panel, with a timer, ensuring a daily power cutoff.

RISKS:

Any use of the product with an input voltage or output power higher than specified is prohibited.

COMPLIANCE:

All wiring operations must be performed by a licensed electrician, with the power turned off beforehand.

OPERATION:

All terminals must strictly conform to the wiring diagram, otherwise, serious damage may occur.

EFFECTIVENESS:

To avoid continuous «ON» mode, program the transformer timer.

