



CNCGLASS Product Catalog

EVA4PDLC — Special EVA Film for Switchable Glass

English

EVA4PDLC special EVA film for switchable glass / PDLC smart glass — EVA interlayer for polymer dispersed liquid crystal laminated glass; high UV blocking EVA for switchable glass.

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Product List Edition

Lead SKU: 0.76 mm × 2300 mm × 50 M/roll

CNCGLASS · Product List / Specifications

EVA4PDLC special EVA film for switchable glass / PDLC smart glass. Widths 2.0–2.6 m (0.1 m steps); standard thicknesses 0.76 mm and 1.14 mm.

Specifications below. Commercial terms available on request.

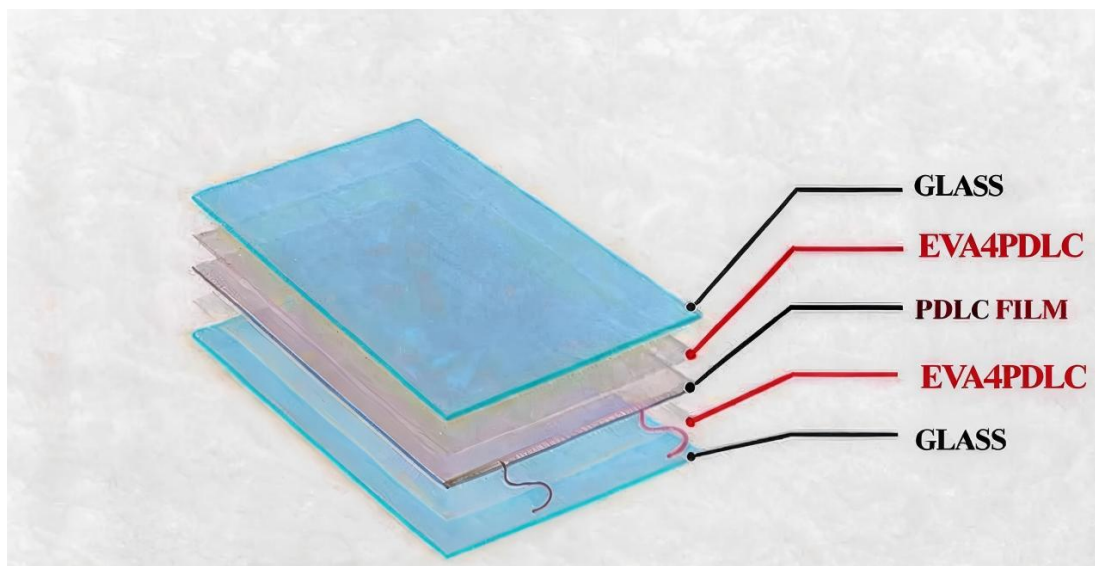
Product	Description	Specifications
EVA4PDLC	Special EVA film for switchable glass / PDLC smart glass; cast film; non-tacky at room temperature	0.76 mm × 2300 mm × 50 M/roll (widths 2.0–2.6 m available)
EVA4PDLC	Special EVA film for switchable glass — thicker grade	1.14 mm × (widths 2.0–2.6 m) × 25 M/roll

Note: Other widths and thicknesses are available; contact for quotation. Packaging: EPE foam + PE vacuum bag + kraft paper.

CNCGLASS · Introduction & Structure

The Special EVA Film for Switchable Glass (EVA4PDLC) is a film-type product made primarily from ethylene-vinyl acetate copolymer (EVA), compounded with specialty modifiers and additives, uniformly blended and extruded through a cast film process. The product is non-tacky at room temperature, facilitating handling and processing. Through heat lamination and curing, crosslinking and bonding reactions integrate two layers of glass and the PDLC (polymer dispersed liquid crystal) switchable film into a single unit. EVA4PDLC is specifically designed for switchable glass, primarily to protect the PDLC film and provide excellent bonding strength.

Laminate structure: GLASS / EVA4PDLC / PDLC FILM / EVA4PDLC / GLASS



Structural composition of switchable / PDLC smart glass with EVA4PDLC interlayer

CNCGLASS · Advantages

High transparency, high UV blocking, low attenuation

Supports light transmittance of switchable glass with a stable solar control performance. High UV blocking EVA for switchable glass helps protect the PDLC layer.

Extremely high adhesion to glass and PDLC

Enhances shatter safety and fragment retention; helps maintain structural integrity without delamination.

Low yellowing index

Supports lasting aesthetics with limited yellowing over the service life of the laminated unit.

High strength and hardness, excellent weather resistance, low water absorption

Protects the PDLC film and contributes to the overall service life of the switchable glass.

CNCGLASS · Technical Parameters

Basic Physical Properties

Test Item	Standard	Unit	Specification
Haze	GB/T 2410-2008	%	< 0.2
Light Transmittance	GB/T 2680-2021	%	≥ 91.5
Hardness	GB/T 531-1999	—	79 HA
Melting Point	GB/T 2680-2021	°C	72–78
UV Block Rate (280–380 nm)	—	%	> 99
Tensile Strength	ISO 527-3-2003	MPa	≥ 20
Elongation at Break	—	%	≥ 450
180° Peel Strength	GB/T 2790-1995	N/cm	≥ 100
Ball Drop Impact Resistance	GB 15763.3-2009	—	No failure
Shot Bag Impact Resistance	—	—	No failure

Aging & Durability Performance

Test Condition	Test Item	Standard	Specification
85°C / 85% RH / 1000 h	Yellowing Index	HG/T 3862-2006	$\Delta YI \leq 2$

85°C / 85% RH / 1000 h	180° Peel Strength	GB/T 2790-1995	≥ 40 N/cm
85°C / 85% RH / 1000 h	Appearance	BJ LAB METHOD	No delamination, no bubbles
-40°C × 30 min ⇄ 80°C × 30 min, 50 cycles	ΔT	—	ΔT ≤ 0.5%
UV Aging: 120 kW·h	Yellowing Index	GB/T 16422.3	ΔYI ≤ 4
Boiling Water Test · 2 h	Heat Resistance	GB 15763.3-2009	No delamination, no bubbles
Radiation Test: 2000 h	Appearance	EN ISO 12543-4	No bubbles, no de-bonding, no haze

CNCGLASS · Product Specifications & Packaging

EVA interlayer for polymer dispersed liquid crystal laminated glass — standard commercial sizes.

Width	Thickness	Standard Length	Packaging
2.0 / 2.1 / 2.2 / 2.3 / 2.4 / 2.5 / 2.6 m	0.76 mm	50 m	EPE + PE vacuum + kraft
2.0 / 2.1 / 2.2 / 2.3 / 2.4 / 2.5 / 2.6 m	1.14 mm	25 m	EPE + PE vacuum + kraft

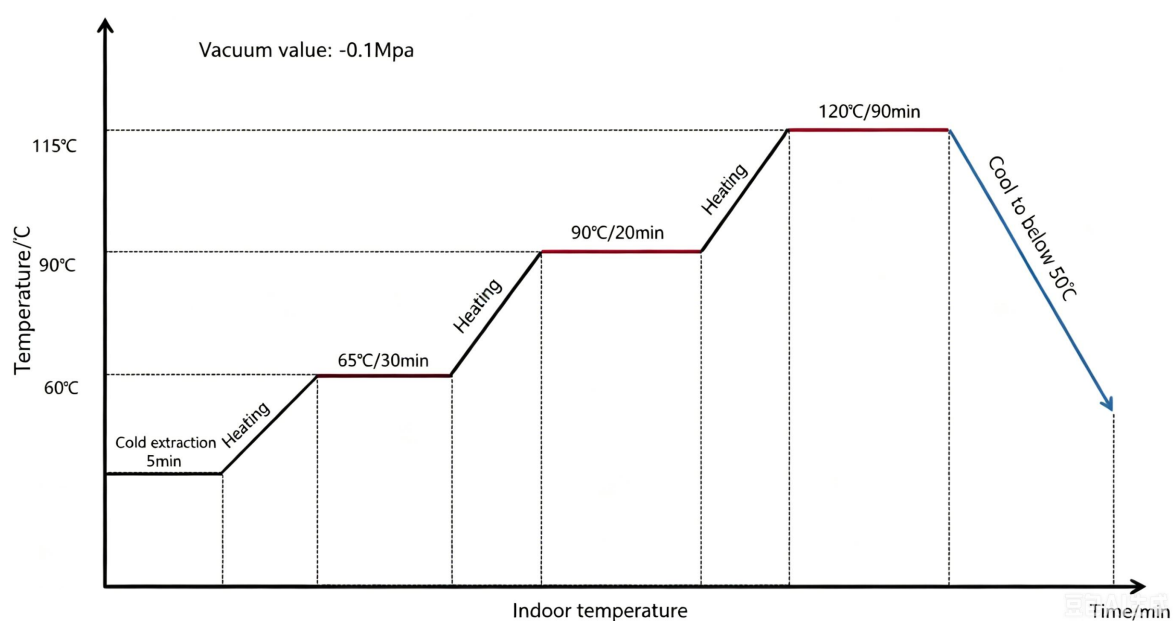
Width steps: 0.1 m. Other widths/thicknesses available upon request.

CNCGLASS · Process Guidelines

Recommended processing parameters for EVA4PDLC (example construction: 5 mm glass + 0.76 mm EVA4PDLC + 5 mm glass).
Vacuum: -0.1 MPa.

Stage / Parameter	Reference setting
Cold extraction	5 min (before heating)
Heat → low-temperature hold	65°C / 30 min
Heat → mid-temperature hold	90°C / 20 min
Heat → high-temperature hold	120°C / 90 min
Cooling	Cool to below 50°C
Vacuum	-0.1 MPa throughout the cycle

Process curve (reference)



EVA4PDLC vacuum laminating process curve — glass surface temperature reference

Process notes

- Temperatures on the process curve refer to glass surface temperature.
- Parameters are for reference only. Adjust according to glass thickness, glass area, stacking method, processing environment, and equipment characteristics.
- If fogging or poor clarity occurs after lamination, extend the holding time or raise the temperature as appropriate.

CNCGLASS · Storage & Handling

- Store in a cool, dry, temperature-controlled environment: temperature $\leq 25^{\circ}\text{C}$, humidity $\leq 60\%$.
- Shelf life: 12 months under the stated storage conditions.
- Avoid moisture exposure. After opening the packaging or after cutting, use within 48 hours.

CNCGLASS · Contact

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For quotations, technical samples, or custom widths and thicknesses, please contact us by email or WhatsApp.

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