GLYMPSE · SMART GLASS SOLUTIONS

High VLT PDLC Film

Adhesive PDLC Smart Film · VLT Series

INDOOR GRADE

APPLICATION

Office partitioning, Residential, internal partitioning, Bathrooms, Kitchens and More....

Film Layer Structure

- PE Protective Film
- PET Release Film
- ITO Conductive Film
- **Liquid Crystal**
- ITO Conductive Film
- OCA Adhesive
- PET
- Silica Gel

0.47 mm total

Size Specifications

Parameter	Detail	Value
Total Thickness	—	**0.47 mm**
Cut to Sheet	Width	**100–1800 mm**
	Length	**100–50,000 mm**
Roll	Width	**1200/1500/1800 mm**
	Length	**30 / 50 meters**
Roll Tube	Inner Diameter	**6 inches**

Product Transparency / Haze

State	Haze	Full Light Trans.	b Value	45° Light	Parallel Light
		Full Light Tester			Parallel Light Tester
OFF	**94.5**	**85.0%**	7.57	—	—
ON	**3.00**	**91.0%**	5.29	60.0	88.0%

Optical Parameters

Parameter	State	Value
Operating Voltage	ON	**70V AC**
Power Consumption	ON	**≤ 5 W/m²**
Viewing Angle	ON	**≥ 160°**
UV Blocking Rate	OFF	**≥ 99%**
Infrared Blocking Rate	OFF	**≥ 60%**
Response Time OFF → ON	—	**≤ 30 ms**
Response Time ON → OFF	—	**≤ 200 ms**
Operating Temperature	—	**-30°C to +50°C**
Life-span	—	**100,000 Hours**
Switching Times	—	**≥ 2 Million**



Key Performance Highlights

94.5
Haze (OFF state)
Full privacy mode

91.0%
Light Transmittance (ON)
Full transparency mode

99%+
UV Blocking Rate
Superior protection

100K hrs
Rated Lifespan
GB18910.5-2008 certified

How It Works

PDLC film is driven by AC power. When power is applied, liquid crystals align — the film becomes colorless and transparent (ON). When power is removed, crystals scatter randomly, producing a frosted, privacy-opaque appearance (OFF). Instant switching with no mechanical parts.

POWER OFF — Frosted / Private

POWER ON — Clear / Transparent

Spec sheet for reference only · Figures may be subject to variation · © Glympse Smart Glass Solutions