

SMART FILM ADHESIVE WHITE

Adhesive Polymer Dispersed Liquid Crystal (PDLC) smart film switches between opaque and clear states instantly. When power is off, liquid crystals (LC) scatter light, making the film opaque. When power is on, the crystals align, allowing light to pass through for full transparency.

ADVANTAGES



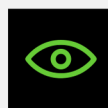
Fast Switching Time

Changes from clear to opaque in less than 10 ms



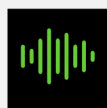
Low Power

Consumes less than 5W/m² when on



Ultra Clear

Transmits more than 88% of visible light



Acoustic Insulation

Acts as a sound barrier reducing noise transmission



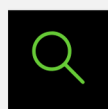
Long Lasting

Lasts over 15 years and endures 80 millions of switching cycles



Wellbeing

Allowing natural daylight



Low Haze

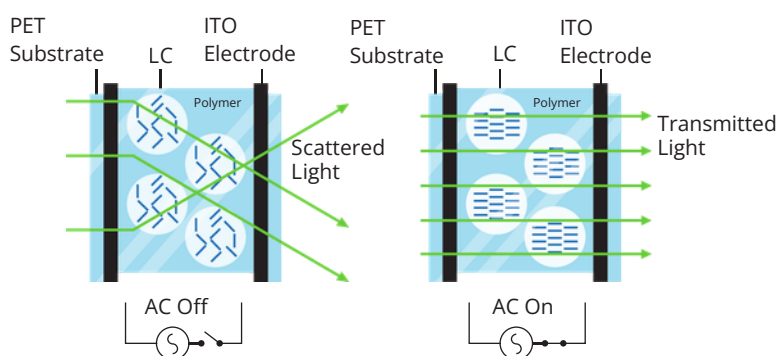
Maintains haze below 2.5%, preserving crisp views



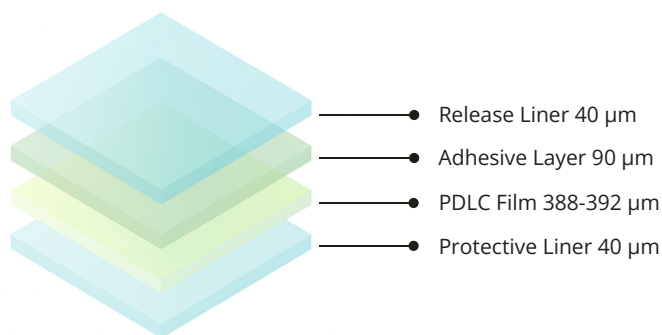
Control

Certified controllers offer on/off and dimming

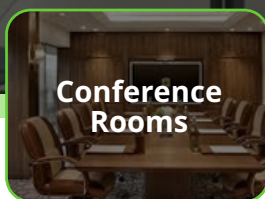
WORKING PRINCIPLE



LAYERS STRUCTURE



APPLICATIONS



SMART FILM ADHESIVE WHITE SPECIFICATIONS

CATEGORY	PARAMETER	STATE	T91 - 16 μm	T91 - 12 μm
OPTICAL	Color	ON	Clear	
		OFF	Opaque White	
	Visible Light Transmittance	ON	90% ±2%	90% ±2%
		OFF	83%±5%	85%±5%
	Parallel Light Transmittance	ON	87.75%	87.75%
		OFF	0.83%	0.85%
	Haze	ON	<2.5%	<2.5%
	Viewing Angle	ON	>140°	>140°
	UV Blocking Rate	ON	99.7%	99.7%
	SHGC	ON	0.923	
	OFF	0.638		
ELECTRICAL	Controller Input Supply	110V / 220V AC		
	Working Operating Voltage	ON	48-65V AC (50/60Hz)	
	Response Time	ON -> OFF	< 200 ms	
	Response Time	OFF -> ON	< 10 ms	
	Switching Times	> 80 million Times		
	Durability	ON	> 15 years	
	Smart Film Power Consumption	ON	< 5 W/m2/h (<0.45W/Sq. F)	
	Controller Power Consumption	2-4 W/m2/h (0.19-0.37 W/Sq. F)		
	Operating Modes	On, Off, Dimming, Segments		
MECHANICAL	Width	1030, 1235, 1535, 1830mm (40 1/2", 48 5/8", 60 3/8", 72")		
	Roll Length	30m (≈100 ft) 50m (≈165 ft)		
	Formats	Cut to Size , Roll, Custom Roll Blinds, Shapes		
	Available Colors	White, Grey, Black, Custom		
	Compliance	Company: ISO9001, IATF16949 Products: RoHS,CE, UL		
ENVIRONMENTAL	Storage Conditions	-20°C~ 60°C (-4°F ~ 140°F) 20%-60% humidity		
	Working Temperature	-20°C~ 65°C (-4°F ~ 149°F)		