

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



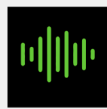
Low Power

Consumes less than 4W/m² when on



Ultra Clear

Transmits more than 88% of visible light



Acoustic Insulation

Acts as a sound barrier reducing noise transmission



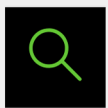
Long Lasting

Lasts over 15 years and endures 80 millions of switching cycles



Wellbeing

Allowing natural daylight



Low Haze

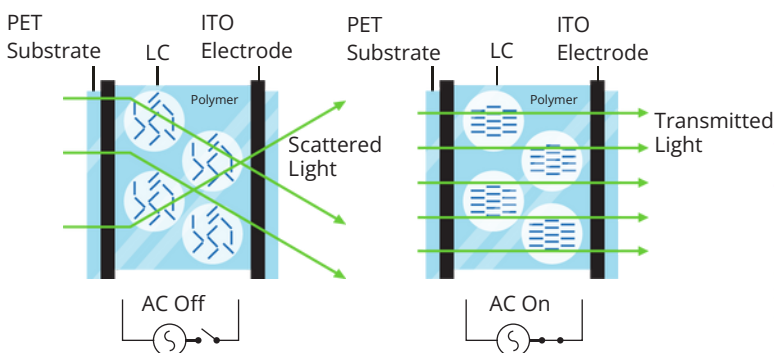
Maintains haze below 3.0%, preserving crisp views



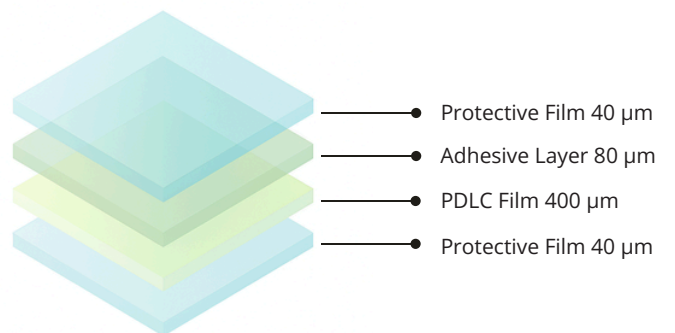
Control

Certified controllers offer on/off and dimming

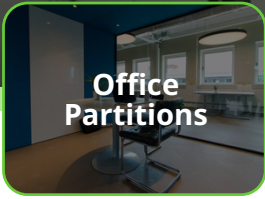
WORKING PRINCIPLE



LAYERS STRUCTURE



APPLICATIONS



SMART FILM ADHESIVE WHITE SPECIFICATIONS

CATEGORY	PARAMETER	STATE	T89	T91	
OPTICAL	Color	ON	Clear		
		OFF	Opaque White		
	Visible Light Transmittance	ON	88% ±2%	90% ±2%	
		OFF	69%±5%	72%±5%	
	Parallel Light Transmittance	ON	84.80%	86.10%	
		OFF	3.30%	4.20%	
	Haze	ON	<3.0%	<2.5%	
	Viewing Angle	ON	>150°	>160°	
	UV Blocking Rate	ON	99.6%	99.7%	
	SHGC	ON	0.923		
OFF		0.638			
ELECTRICAL	Controller Input Supply	110V / 220V AC			
	Working Operating Voltage	ON	48-65V AC		
	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	< 4 W/m2/h (<0.36W/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) < 50% humidity			
	Working Temperature	-20°C~ 70°C (-4°F ~ 160°F)			