

SMART GLASS

Insulated Glass Unit (IGU)

Polymer Dispersed Liquid Crystal (PDLC) smart glass switches between opaque and clear states instantly. When power is off, liquid crystals (LC) scatter light, making the glass opaque. When power is on, the crystals align, letting light 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 80% 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

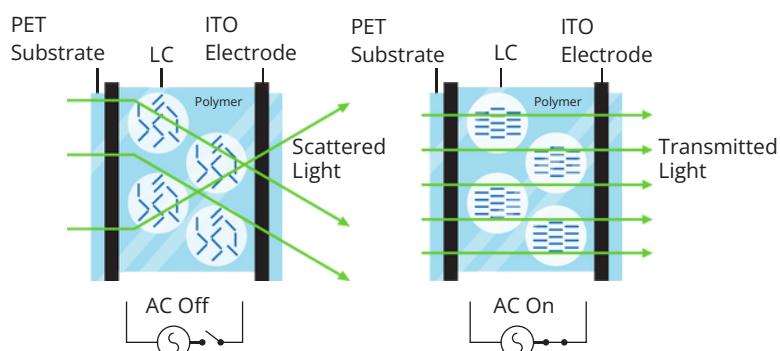
Maintains haze below 3.0%, preserving crisp views



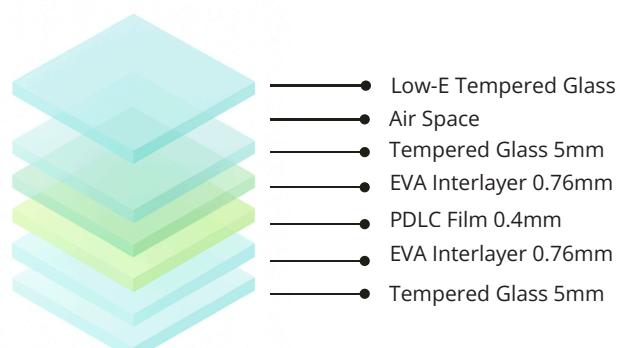
Control

Certified controllers offer on/off and dimming

WORKING PRINCIPLE



LAYERS STRUCTURE



APPLICATIONS



Office
Partitions



Conference
Rooms



Medical Centers
& Clinics



Bathroom
Partitions



Showrooms

Insulated Glass Unit (IGU) SPECIFICATIONS

CATEGORY	PARAMETER	STATE	T83
OPTICAL	Color	ON	Clear
		OFF	Opaque White
	Visible Light Transmittance	ON	> 82%
		OFF	< 10% ±2%
	Parallel Light Transmittance	ON	> 82%
		OFF	4%
	Haze	ON	< 3%
	Viewing Angle	ON	> 150°
	UV Blocking Rate	ON / OFF	99.6%
	SHGC	ON	< 0.35
		OFF	< 0.28
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	> 20 years
	Current	ON	< 200mA Sq.M (0.18 mA Sq.F)
	Smart Glass 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	Glass Thickness		5+5, 6+6, 8+8, 10+10, 12+12mm, custom (3/16", 1/4", 5/16", 3/8", 1/2" custom)
	Air Space (Silver or Black)		6, 9, 12, 15, 18mm (1/4 ,3/8 ,7/16, 1/2, 3/4")
	Low-E Exterior Glass		5, 6, 8, 10, 12mm (3/16, 3/12, 3/8, 1/2")
	Max Width (Length unlimited)		White: 2000mm (70") Grey, Black: 1520mm (60")
	Available Colors		White, Grey, Black, Custom
ENVIRONMENTAL	Compliance		Company: ISO9001, IATF16949 Products: RoHS,CE, UL
	Storage Conditions		-20°C~ 60°C (-4°F ~ 140°F) < 50% humidity
	Working Temperature		-20°C~ 80°C (-4°F ~ 176°F)