

ABOUT

The core of the Self Tinting Film (STF) is photochromic interlayer for dynamic windows which lightens and darkens by itself - with absolutely no mechanical intervention - based on lighting conditions of the sunlight. The more direct and intense the sunlight is on the film the darker it will become. The system maximizes natural daylight while minimizing heat gain.

No wires --- No controls --- No power supplies

As part of a dynamic window system, STF contributes to manage a building's changing needs for passive solar heat gain and natural daylight. All together this lower cost associated with heating, air conditioning and artificial lighting. STF also provides all of the benefits of a safety laminated window. STF puts the view back in windows again by reducing the need for shades, blinds and other devices that block vision.

SPECIFICATIONS ADHESIVE SELF TINTING FILM

Type	Applications	UV Rejection	VLT 	IR Rejection	TSET (A)	SHGC
STF7580B	Architecture Front Automotive	>99%	72%-39%	>80%	43%	50%
STF5080B	Architecture Side & Rear Automotive	>99%	53%-38%	>80%	33%	43%
STF3580B	Architecture Side & Rear Automotive	>99%	35%-27%	>80%	27%	40%
STF2580B	Architecture Side & Rear Automotive	>99%	27%-21%	>80%	21%	35%

TEST - Total Solar Energy Transmission

Film thickness - 2mil (0.0508 mm)

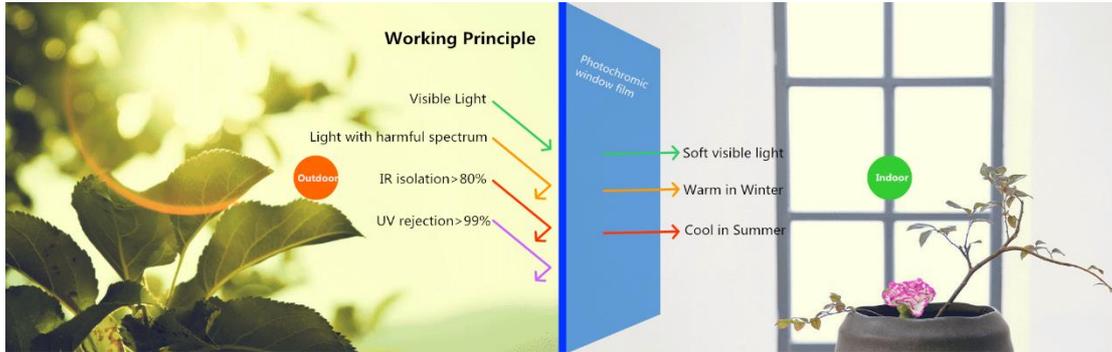
Roll Size - Width 90cm / 152cm Length 30 meter / 60 meter

Warranty - 8 Years

No electronic signal interference

Storage - Room Temperature





ENERGY SAVING CASE STUDY

According to the actual monitoring of the heat generated by solar energy in hot city in summer time, the direct heat load generated by solar energy is $900\text{W}/\text{m}^2$, considering the average heat load conversion of glass is $500\text{W}/\text{m}^2$, and the annual total sunshine time is 1608 hour in, thus the annual energy consumption per square meter of glass increased by heat load generated by solar radiation into the indoor is $(500\text{W}/\text{m}^2 \times 1608\text{h}) / 4 = 201 \text{ kwh}$. If the total solar energy insulation rate of smart optically-controlled window film is 80%, then the annual energy-saving is $201 \text{ kwh}/\text{m}^2 \times 80\% = 160.8 \text{ kwh}/\text{m}^2$.



Installation: STF for Existing Glass - you can apply STF on existing glass using water for activating the optical adhesive layer. STF in a Laminated Glass - you simply install the glass as any other typical window (or insulated glass unit)

Production: Annual capacity of 2,000,000 square meter, production standards under ISO 9001, 14001 and ISO 18001.

