



smartfilmplus

SelfTinting SolarFilm SPECIFICATION

(technical details and accessories)

SelfTinting SolarFilm SPECIFICATION

*The core of the Self Tinting Film 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 and No power supplies.***

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

Installation:

Self Tinting Film for Existing Glass - you can apply it on existing glass (internal) using water for activating the optical adhesive layer. Self Tinting Film 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.

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 $201\text{ kwh}/\text{m}^2 \times 80\% = 160.8\text{ kwh}/\text{m}^2$.



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Type	Thickness	VLT	VLR	UV/R	IR/R	TSE (R)	SHGC	U-Factor
STF-V70	2 mil	75%	9%	99,0%	86%	58%	0,47	1,90
	2 mil	30%	11%	99,0%	90%	62%	0,38	1,90

STF-V65	2 mil	65%	23%	99,0%	68%	52%	0,51	1,90
	2 mil	30%	25%	99,0%	70%	47%	0,53	1,90

STF-S45	4,5 mil	45%	9%	99,0%	90%	67%	0,43	1,70
	4,5 mil	18%	7%	99,0%	92%	76%	0,42	1,70

STF-Q35	2 mil	35%	18%	99,0%	85%	59%	0,26	1,60
	2 mil	24%	24%	99,0%	91%	60%	0,21	1,60

VLT - Visible Light Transmission

VLR - Visible Light Reflection

UV/R: Ultra Violet Filter

IR/R: Infrared Filter

TSE(R) - Total Solar Energie Rejected

SHGC: Solar Heat Gain Coefficient

U-Factor: Thermal Transmittance

Verklebung: Inside (recommended, just on temp. glass!) / Outside (Max. Warranty 2 Years)

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