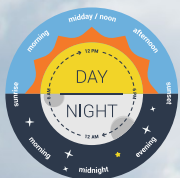




SMARTGLASSNORDIC
DYNACLIME

**DYNACLIME takes
your windows to a
new level!**

**Photochromic
solar film powered
by the UV light
from the sun.**



SMARTGLASSNORDIC

Morning

Forenoon

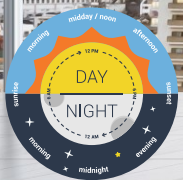
Noon

Afternoon

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Photochromic solar film reacts to UV light and tints from clear to dark the brighter it is outside.





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10 REASONS

- ◇ 99% UV-rejection
- ◇ More pleasant indoor climate
- ◇ Natural organic molecules activates the film
- ◇ Reduces the glare in the glass
- ◇ Saves energy regarding indoor cooling
- ◇ Compatible with insulating glass and low energy glass
- ◇ Extra protection in case of external force towards glass
- ◇ Reduces need for electric curtains or other sun blocking equipment

DYNACLIME

Photochromic solar film that dynamically change the degree of tint when exposed to the sun's UV rays, which affects a number of different factors in glass environments such as facades, car glass and glazing. DYNACLIME provides a more pleasant indoor climate and reduces energy consumption.

DYNACLIME Optical Supreme DS, and DYNACLIME Optical Supreme SS are based on different manufacturing methods / techniques and material choices, which in turn give different results and performance. Our photochromic films consist of several layers where compactness and choice of material are of utmost importance.

DYNACLIME Optical Supreme DS - Double Silver

DYNACLIME Optical Supreme DS have higher reflective properties and the film's dynamics between the light, and the dark mode. Premium film with high optical clarity.

DYNACLIME Optical Supreme SS - Single Silver

Is a series of films where we have only invested in the best of the best to create films with higher optical clarity and more compact structure. A premium segment with more durable films. Dynaclime Optical Supreme SS have lower reflective properties than DS.

OVERVIEW

Film	VLT		Total Solar Energy Reflected		Total Solar Energy Absorbed		IR-rejection		UV-rejection		TSER		G-value (SHGC)		U-value	
	Normal	Darkest	Normal	Darkest	Normal	Darkest	Normal	Darkest	Normal	Darkest	Normal	Darkest	Normal	Darkest	Normal	Darkest
PC75DS Double Silver	73%	22%	60%	65%	11%	16%	92%	95%	99%	100%	61%	77%	0.35	0.26	5.9	6.1
PC50SS Single Silver	50%	20%	39%	42%	13%	17%	63%	67%	99%	100%	50%	58%	0.46	0.41	5.9	6.0
PC35SS Single Silver	35%	20%	36%	37%	40%	44%	83%	85%	99%	100%	66%	70%	0.33	0.31	5.8	6.0
PC75SS Single Silver	71%	19%	26%	32%	37%	46%	93%	94%	99%	100%	54%	68%	0.46	0.33	5.9	6.0

All measured values shall be considered indicative. For more information contact Smart Glas Nordic AB

PC75DS Double Silver

Thickness (adhesive included):	94 μ (0,094 mm / 3,7 mil)	
Total Solar Energy	Normal	Darkest
Solar Energy Transmission %	30 %	19 %
Solar Energy Reflection %	60 %	65 %
Solar Energy Absorption %	11 %	16 %
Visible Light:		
Visible Light Transmission %	73 %	22 %
Visible Light Reflection (External) %	15 %	19 %
Visible Light Reflection (Internal) %	12 %	15 %
Glare Reduction %	28 %	69 %
G-value (Solar Heat Gain Coefficient)	0.35	0.26
Shading Coefficient	0.40	0.30
Infrared Rejection %	92 %	95 %
Total Solar Energy Rejection%	61 %	77 %
U value (W/m ² k)	5.9	6.1
Emissivity	0.84	0.84
Ultraviolet Transmission %	<1 %	0 %
<i>Values measured on clear 4 mm float glass.</i>		



PC50SS Single Silver

Thickness (adhesive included):	60 μ (0,06 mm / 2,5 mil)	
Total Solar Energy	Normal	Darkest
Solar Energy Transmission %	47 %	40 %
Solar Energy Reflection %	39 %	42 %
Solar Energy Absorption %	13 %	17 %
Visible Light:		
Visible Light Transmission %	50 %	20 %
Visible Light Reflection (External) %	17 %	22 %
Visible Light Reflection (Internal) %	15 %	16 %
Glare Reduction %	50 %	69 %
G-value (Solar Heat Gain Coefficient)	0.46	0.41
Shading Coefficient	0.52	0.47
Infrared Rejection %	63 %	67 %
Total Solar Energy Rejection%	50 %	58 %
U value (W/m ² k)	5.9	6.0
Emissivity	0.84	0.84
Ultraviolet Transmission %	<1 %	0 %
<i>Values measured on clear 4 mm float glass.</i>		



PC35SS Single Silver

Thickness (adhesive included):	114 μ (0,1143mm / 4,5 mil)	
Total Solar Energy	Normal	Darkest
Solar Energy Transmission %	24 %	19 %
Solar Energy Reflection %	36 %	37 %
Solar Energy Absorption %	40 %	44 %
Visible Light:		
Visible Light Transmission %	35 %	20 %
Visible Light Reflection (External) %	22 %	26 %
Visible Light Reflection (Internal) %	16 %	18 %
Glare Reduction %	69 %	72 %
G-value (Solar Heat Gain Coefficient)	0.33	0.31
Shading Coefficient	0.38	0.36
Infrared Rejection %	83 %	85 %
Total Solar Energy Rejection%	66 %	70 %
U value (W/m ² k)	5.8	6.0
Emissivity	0.84	0.84
Ultraviolet Transmission %	<1 %	0 %
<i>Values measured on clear 4 mm float glass.</i>		



PC75SS Single Silver

Thickness (adhesive included):	100 μ (0,1 mm / 4 mil)	
Total Solar Energy	Normal	Darkest
Solar Energy Transmission %	37 %	22 %
Solar Energy Reflection %	26 %	32 %
Solar Energy Absorption %	37 %	46 %
Visible Light:		
Visible Light Transmission %	71 %	19 %
Visible Light Reflection (External) %	11 %	15 %
Visible Light Reflection (Internal) %	11 %	14 %
Glare Reduction %	30 %	63 %
G-value (Solar Heat Gain Coefficient)	0.46	0.33
Shading Coefficient	0.53	0.38
Infrared Rejection %	93 %	94 %
Total Solar Energy Rejection%	54 %	68 %
U value (W/m ² k)	5.9	6.0
Emissivity	0.84	0.84
Ultraviolet Transmission %	< 1 %	0 %
<i>Values measured on clear 4 mm float glass.</i>		



Solar film terms



Total Solar Energy Transmission

The amount of total solar energy that passes through the glass and film together.

Total Solar Energy Reflection

The amount of total solar energy that is reflected away from the glass and does not reach the inside of the building. *(This includes heat/energy that is absorbed by the glass)*

Total Solar Energy Absorption

The amount of total solar energy that is immediately absorbed by the glass and converted into heat. *(Within the wavelength 280 – 2500 nm)*

Visible Light Transmission (VLT)

The amount of visible light traveling through the glass and film. *(Within the wavelength range 380 – 780 nm)*
The higher the number, the more natural light travels through the glass. The lower the number, the darker the film.

Visible Light Reflection (External)

The amount of visible light that is reflected away from the outside of the window. This is seen when you stand outside the building. A higher value means that the window looks more like a mirror from the outside.

Visible Light Reflection (internal)

The amount of visible light that is reflected back on the inside of the window. This is seen when standing inside the building and looking out the window. A higher value means that the window looks more like a mirror from the inside.

Glare reduction

Percentage reduction of visible light compared to a clear window without film.

Solar film terms



G-value (Solar Heat Gain Coefficient)

The total direct (primary) solar transmission plus the re-radiation (secondary) from the absorbed solar energy inside the building, divided by 100. The lower the G-value, the less solar heat is transmitted.

(The value is thus the coefficient of Total solar energy transmission.)

Shading Coefficient

The ratio between the amount of solar energy that passes through a window with film on and heat that passes through a clear window without film. A lower value means better heat rejection.

Infrared rejection

The amount of infrared (IR) energy blocked by the film, either by reflecting or absorbing. This value applies to the entire IR range of the solar spectrum, approximately 780 nm up to 2500 nm.

Total Solar Energy Rejection (TSER)

The amount of total solar energy that does not reach the building. This is normally 2/3 of absorbed energy plus all reflected energy.

U-value (EN 673 W/m²k)

A measure that indicates a building's heat loss, i.e. amount of heat lost from one side to the other based on the difference between outside and inside temperature. The value is measured in Watt/m². The lower the U-value, the lower the heat transfer.

Emissivity

The ability of the film to reflect infrared energy, i.e. how much heat it will save back to a room. The value is expressed in the difference between the radiation emitted from a specific surface in comparison with a surface that absorbs and emits all radiation (a so called Black body) when both surfaces have the same temperature.

Ultraviolet Transmission (300 – 380 nm)

The amount of ultraviolet light transmitted through the glass and film. *(Within the wavelength range 280 – 380 nm)*