Automotive Window Film Selector Guide

CX Magnum

SAINT-GOBAIN

www.solargard.eu

Performance Notes

PERFORMANCE NOTES

Performance results were generated with LBNL Windows 5.2 using 1/8" (3mm) clear glass and have been measured, calculated and reported in accordance with ASTM, ASHRAE and AIMCAL standards. Solar Gard® is a participating member of AIMCAL and the IWFA.

Performance results are subject to variations within industry standards and should be used for comparative purposes only.

Important: Solar Gard is not responsible for automotive window film installation compliance with the laws of your state, or the laws of any other state where the vehicle may be utilized. You must therefore determine whether such window film is in compliance with any such laws. **Do not install any window film product in violation of any law.**

Seven Reasons to Tint Your Car

01 » ***Driving comfort***

Window film is designed to reject and absorb the solar energy that heats up the inside of your car. This reduces the need to use air conditioning.

02 » ***Protection from UV rays***

Solar Gard window film blocks up to 99% of the harmful UVA and UVB rays from the sun that can cause skin cancer with an SPF rating of 285+.

03 » ***Safer driving***

Window film reduces the glare from the sun, snow and headlights, which can increase visibility to make driving safer.

04 » ***Shatter protection***

Solar Gard window film helps hold glass together when shattered, preventing dangerous shards from harming passengers in the event of an accident.

05 » ***Enhanced privacy***

Increase privacy and even helps prevent theft by reducing the outside view of possessions inside the car. Note: All window films must be applied in accordance with local tint laws by a professional Solar Gard installer.

06 » ***Protecting your investment***

Heat rejection coupled with UV protection can prevent sun damage and fading to your car's interior, maintaining the interior of your car longer.

07 » ***Customize your look***

Window film can give your car a customized sleek look with a variety of shades and colors. Our full line-up can be found at www.solargard.com.

» SOLAR GARD® AUTOMOTIVE WINDOW FILMS

CX Magnum S2

Performance Results

		3 mm glass
Visible Light		
TR (%)	Transmittance	3
TR (%) at 550 nm	Transmittance at 550 nm	3
Re (%)	Reflectance Exterior	5
Ri (%)	Reflectance Interior	5
GR (%)	Glare Reduction	97
Solar Energy		
TSER (%)	Total Solar Energy Rejected	58
SHGR (%)	Solar Heat Gain Reduction	51
IR (%)	IR Rejection 780 to 2500nm	64
UV (%)	Ultraviolet light blocked @300 to 380 nm	>99
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	-
FR (%)	Fade Reduction Factor	-

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	38/50
ABR (%)	Abrasion Resistance (change after 100 cycles)	<5
TS - kg/cm²	Tensile strength	2100
PUNC - kg	Puncture Strength	22,7

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CX Magnum 5

Performance Results

		3 mm glass
Visible Light		
TR (%)	Transmittance	7
TR (%) at 550 nm	Transmittance at 550 nm	6
Re (%)	Reflectance Exterior	5
Ri (%)	Reflectance Interior	5
GR (%)	Glare Reduction	92
Solar Energy		
TSER (%)	Total Solar Energy Rejected	54
SHGR (%)	Solar Heat Gain Reduction	47
IR (%)	IR Rejection 780 to 2500nm	54
UV (%)	Ultraviolet light blocked @300 to 380 nm	>99
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	-
FR (%)	Fade Reduction Factor	-

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	38/50
ABR (%)	Abrasion Resistance (change after 100 cycles)	<5
TS - kg/cm²	Tensile strength	2100
PUNC - kg	Puncture Strength	22,7

» SOLAR GARD® AUTOMOTIVE WINDOW FILMS

CX Magnum 20

Performance Results

		3 mm glass
Visible Light		
TR (%)	Transmittance	19
TR (%) at 550 nm	Transmittance at 550 nm	19
Re (%)	Reflectance Exterior	6
Ri (%)	Reflectance Interior	5
GR (%)	Glare Reduction	79
Solar Energy		
TSER (%)	Total Solar Energy Rejected	46
SHGR (%)	Solar Heat Gain Reduction	37
IR (%)	IR Rejection 780 to 2500nm	46
UV (%)	Ultraviolet light blocked @300 to 380 nm	>99
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	-
FR (%)	Fade Reduction Factor	-

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	38/50
ABR (%)	Abrasion Resistance (change after 100 cycles)	<5
TS - kg/cm²	Tensile strength	2100
PUNC - kg	Puncture Strength	22,7

» SOLAR GARD® AUTOMOTIVE WINDOW FILMS

CX Magnum 35

Performance Results

		3 mm glass
Visible Light		
TR (%)	Transmittance	40
TR (%) at 550 nm	Transmittance at 550 nm	40
Re (%)	Reflectance Exterior	6
Ri (%)	Reflectance Interior	6
GR (%)	Glare Reduction	56
Solar Energy		
TSER (%)	Total Solar Energy Rejected	35
SHGR (%)	Solar Heat Gain Reduction	24
IR (%)	IR Rejection 780 to 2500nm	35
UV (%)	Ultraviolet light blocked @300 to 380 nm	>99
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	-
FR (%)	Fade Reduction Factor	-

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	38/50
ABR (%)	Abrasion Resistance (change after 100 cycles)	<5
TS - kg/cm²	Tensile strength	2100
PUNC - kg	Puncture Strength	22,7

» SOLAR GARD® AUTOMOTIVE WINDOW FILMS

CX Magnum 50

Performance Results

		3 mm glass
Visible Light		
TR (%)	Transmittance	52
TR (%) at 550 nm	Transmittance at 550 nm	52
Re (%)	Reflectance Exterior	7
Ri (%)	Reflectance Interior	7
GR (%)	Glare Reduction	42
Solar Energy		
TSER (%)	Total Solar Energy Rejected	29
SHGR (%)	Solar Heat Gain Reduction	17
IR (%)	IR Rejection 780 to 2500nm	29
UV (%)	Ultraviolet light blocked @300 to 380 nm	>99
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	-
FR (%)	Fade Reduction Factor	-

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	38/50
ABR (%)	Abrasion Resistance (change after 100 cycles)	<5
TS - kg/cm²	Tensile strength	2100
PUNC - kg	Puncture Strength	22,7

Solar Energy Technical Definitions

SOLAR ENERGY TECHNICAL DEFINITIONS

Visible light transmittance
The percent of total visible light that is transmitted through the window film/glass system. The lower the number, the less visible light transmitted.

Visible light reflectance out
The percent of total visible light that is reflected by the window film/glass system. The lower the number, the less visible light reflected.

Ultraviolet rejected
The percent of ultraviolet (UV) that is blocked by the window film/glass system. The higher the number, the less UV transmitted.

Sun protection factor
The SPF rating is a measure of the protection from UVB ultraviolet radiation caused by exposure to the sun. It is calculated by comparing the amount of time needed to produce a sunburn on protected skin to the amount of time needed to cause a sunburn on unprotected skin. Solar Gard window films block up to 99% of both UVA and UVB.

Total solar energy rejected
The percent of total solar energy (heat) rejected by the window film/glass system. The higher the number, the more total solar energy (heat) rejected.

UV Tdw-ISO @ 300 to 700 nm
One of two recognized calculations to determine fading. Covers fading caused by wavelengths/energy from 300 nm to 700 nm. The lower the value the less fading.

Fade Reduction Factor
Relative reduction of the fading (Tdw-ISO) obtained by applying film on reference glass (in this case: 3 mm clear glass).

What matters most to you…

We're On It!

www.solargard.eu

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