

A better environment inside and out.®

Window Film Selector Guide

Architectural Window Films for Solar, Energy and Safety Solutions





Solar Gard® Films de Protection solaire pour vitrages

Liste de terminologie

Performance du film

Lumière Visible

TR (%)	Transmission
Re/Ri (%)	Réflexion extérieur/intérieur
GL (%)	Réduction éblouissement

Énergie solaire

TR (%)	Transmission
A (%)	Absorption
R (%)	Réflexion
IR (%)	Rejet Infrarouge (780 à 2500nm)
UV (%)	Réduction rayons ultraviolets @300 à 380 nm
SC	Coefficient d'ombrage
G	Facteur solaire (g)
SSI	Ratio lumière visible/facteur solaire (TR/G)
TSER (%)	Énergie solaire totale rejetée
TSER (%) -60°	Énergie solaire totale rejetée angle de 60°
SHGR (%)	Réduction d'échauffement solaire
E	Emissivité
U (W/m²K)	Valeur U Hiver (W/m²°C)
U Red (%)	Réduction de perte de chaleur en hiver
Tdw (%)	Facteur de décoloration UV Tdw-ISO @300 à 700 nm
FR (%)	Facteur de décoloration UV Tdw-K @300 à 500 nm

Caractéristiques physiques

Tnom / T(µm)	Épaisseur nominale/totale
TS - kg/cm²	Résistance à la traction
ELONG	Élongation
PEEL - g/cm	Résistance au pelage
YIELD - kg/cm²	Résistance à la traction (élongation 5%)
BREAK - kg/cm	Résistance à la rupture
TEAR - kg	Résistance à la déchirure de Grave
PUNC - kg	Résistance à la perforation
EPD	Déclaration Environnementale (DEP)

Niveaux de prestation films de sécurité*

EN 12600	Impact humain
EN 356	Resistance à l'intrusion
ISO 16933, GSA, ASTM et INERIS	Résistance selon

*Pour plus de détails sur les tests de sécurité disponibles et d'essai rapports, consulter www.solargard.com ou vous renseigner auprès de votre revendeur / distributeur agréé.



acheter le respect pour un développement durable



АРХИТЕКТУРНАЯ ПЛЁНКА SOLAR GARD®

ТЕХНИЧЕСКИЕ ХАРАКТЕРИСТИКИ

характеристика

Видимый спектр

TR (%)	Коэффициент светопропускания
Re/Ri (%)	Коэффициент отражения внешний/ внутренний
GL (%)	Коэффициент уменьшения лилов
Солнечная энергия	
TR (%)	Коэффициент прозрачности
A (%)	Коэффициент поглощения видимого света
R (%)	Коэффициент отражения видимого света
IR (%)	Отражение лучей ИК спектра 780 - 2500 нм
UV (%)	Коэффициент пропускания в УФ-спектре 300 - 380 нм
SC	Коэффициент затенения
G	Коэффициент поглощения солнечной энергии
SSI	Коэффициент избирательности солнечной энергии
TSER (%)	Суммарный коэффициент отражения солнечной энергии
TSER (%) -60°	Суммарный коэффициент отражения солнечной энергии (угол 60°)
SHGR (%)	Коэффициент уменьшения солнечной энергии
E	Тепловая эмиссия
U (W/m ² K)	U-фактор в зимнее время
U Red (%)	Коэффициент теплопотери в зимнее время
Tdw (%)	Коэффициент выцветания в УФ-спектра 300 - 700 нм
FR (%)	Увядание снижение

Физические свойства

Tnom / T(μm)	Номинальная толщина
TS - kg/cm ²	Предел прочности
ELONG	Удлинение
PEEL - g/cm	Усилие на отрыв
YIELD - kg/cm ²	Предел текучести (при 5%)
BREAK - kg/cm	Усилие на отрыв (при 5%)
TEAR - kg	Усилие на разрыв
PUNC - kg	Усилие на прокол
EPD	Сертификат EPD

испытания на безопасность*

EN 12600	Ударопрочность
EN 356	Взломостойкость
ISO 16933, GSA, ASTM, INERIS	сопротивление взрывам

*Для получения официальных данных о результатах тестов зайдите на www.solargard.com или свяжитесь с ближайшим официальным дистрибутором Solar Gard.





Pellicole per vetri Solar Gard®: controllo solare et sicurezza

Elenco dei termini

Prestazioni

Luce Visibile

TR (%)	Trasmessa
Re/Ri (%)	Riflessa Esterna / Interna
GL (%)	Réduction éblouissement

Energia solare

TR (%)	Energia solare trasmessa
A (%)	Energia solare assorbita
R (%)	Energia solare riflessa
IR (%)	Riduzione raggi IR da 780 a 2500 nm
UV (%)	UV respinti da 300 nanometro a 380 nanometri
SC	Coefficiente di ombreggiatura
G	Valore G
SSI	Indice di selettività solare (VLT / SHGC)
TSER (%)	Energia solare totale respinta
TSER (%) -60°	Energia solare totale respinta ad un angolo di 60°
SHGR (%)	Riduzione del coefficiente di ombreagggiatura
E	Emissività
U (W/m²K)	Fattore U invernale (W/m²°C)
U Red (%)	Riduzione perdita di calore invernale
Tdw (%)	Controllo dello scolorimenti UV Tdw-ISO @300 à 700 nm
FR (%)	Controllo dello scolorimenti UV Tdw-K @300 à 500 nm

Proprietà fisiche

Tnom / T(µm)	Spessore
TS - kg/cm²	Resistenza alla trazione
ELONG	Elongazione
PEEL - g/cm	Resistenza al distaccamento
YIELD - kg/cm²	Resa dello stress (ad 5%)
BREAK - kg/cm	Resistenza alla rottura
TEAR - kg	Resistenza allo strappo
PUNC - kg	Forza di puntura
EPD	Dichiarazione ambientale del prodotto

Test di sicurezza*

EN 12600	Resistenza all'impatto
EN 356	Antieffrazione
ISO 16933, GSA, ASTM, INERIS	Resistenza esplosione

* per i dettagli sui test di sicurezza e il report di sicurezza, consultare www.solargard.com o informarsi presso il proprio rivenditore di zona / distributore autorizzato.





Solar Gard® Sol- och Säkerhetsfilm

Förklaringar/översättningar av förkortningar och termer

Filmprestanda

Synligt ljus

TR (%)	Genomsläpp
Re/Ri (%)	Reflektion utväntigt/invändigt
GL (%)	Bländningsreduktion

Solenergi

TR (%)	Genomsläpp
A (%)	Absorption
R (%)	Reflektion
IR (%)	IR-reduktion (780 - 2500nm)
UV (%)	UV-reduktion @300 à 380 nm

SC Skuggkoefficient

G Solfaktor (g)

SSI Ratio ljusgenomsläpp/
solfaktor (TR/G)

TSER (%) Total solenergi-reduktion

TSER (%) Total solenergi-reduktion
vid 60° vinkel

SHGR (%) Reduktion g-värde

E Emissionsvärde

U (W/m²K) U-värde vintertid (W/m²°C)

U Red (%) Reduktion av värmeförlust
vintertid

Tdw (%) Blekningskontroll
UV Tdw-ISO @300 à 700 nm

FR (%) Blekningsreduktionsfaktor
UV Tdw-K @300 à 500 nm

Fysiska egenskaper

Tnom / T(µm)	Tjocklek
TS - kg/cm ²	Draggräns
ELONG	Förlängningsgrad
PEEL - g/cm	Flagningshållfasthet
YIELD - kg/cm ²	Sträckningsgräns (sträckning 5%)
BREAK - kg/cm	Brottshållfasthet
TEAR - kg	Rivhållfasthet (Grave)
PUNC - kg	Punkteringsstyrka
EPD	Miljövarudeklaration

Säkerhetstester*

EN 12600	Personsskydd
EN 356	Intrångsskydd
ISO 16933, GSA, ASTM och INERIS	Uppnår explosionskrav enligt följande tester

*För detaljerad information och dokumentation kring våra säkerhetstester, besök dc.solargard.com eller kontakta din närmaste Solar Gard återförsäljare.





Solar Gard® Solar Control Window Films

Performance Notes

1. Solar Gard® is a participating member of AIMCAL (the Association of Industrial Metallizers, Coaters and Laminators), IWFA, and EWFA. Performance results are calculated using NFRC methodology and LBNL Window 5.2 software, and are subject to variations within industry standards and only intended for estimating purposes.
2. These test data contain only results arrived at after employing specific test procedures and standards. The included data do not constitute a recommendation for, endorsement of, or certification of the product or material tested. These data are provided for informational purposes only and are not to be considered part of the basis representation or warranty, expressed or implied, including the implied warranties of merchantability or fitness for a particular purpose, that its products will conform to these test data. Solar Gard's limited warranty should be carefully reviewed prior to purchasing any Solar Gard product. Extrapolation of data from the sample or samples relation to the batch or lot from which data were obtained may not correlate and should be interpreted accordingly with caution. Solar Gard shall not be responsible for variations in quality, composition, appearance, performance, or other feature of similar subject matter produced by persons or under conditions over which Solar Gard has no control.
3. Performance results for summer solar heat gain reduction and glare reduction are calculated by comparing filmed glass to that of untreated glazing.
4. The mechanical properties of the safety films have been determined according to:
 - ASTM D882 (tensile strength, elongation, yield stress and break strength)
 - ASTM D4380 (puncture strength)
 - ASTM D903-98 (peel strength)





Solar Gard® Architectural Window Film

Solar Gard window films provide a wide range of benefits to meet your needs.

Heat and comfort

Whether it's a corner office or tables by an expansive window, keep every area of your building a consistent and comfortable temperature.

Energy consumption

Solar Gard window films are a cost-effective retrofit solution that's easy to install and proven to reduce energy costs by up to 30%.

Reduce carbon emissions

Reduce greenhouse gas emissions and your building's carbon footprint for less money than new windows.

Safety and security

Gain protection against break-ins, vandalism and theft without blocking views or changing your building's external appearance.

Glare

Enjoy your views without having to use blinds to block excessive glare.

Fade control

Block 99% of UV light, the primary cause of interior fading.

Protect your skin

Solar Gard films provide a Sun Protection Factor of 285+ to help protect from harmful UVA and UVB rays associated with skin cancer and premature aging.

Appearance

Choose from a wide array of tints and colors, from optically clear to fully reflective, which allows you to change the appearance of your buildings as much or as little as you like.

Privacy

Protect your occupants from onlookers and passers-by with a reflective film that blocks views into your building.





Solar Gard® Solar Control Window Films

LX 80

Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	80	72
Re/Ri (%)	Reflectance Exterior/Interior	9/10	15/15
GL (%)	Glare Reduction	12	12

Solar Energy

TR (%)	Transmittance	54	47
A (%)	Absorptance	26	31
R (%)	Reflectance	20	22
IR (%)	IR Rejection 780 to 2500nm	73	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
G	Solar Heat Gain Coefficient (G-value)	0,60	0,49
SSI	Solar Selectivity Index (VLT/SHGC)	1,33	1,18
TSER (%)	Total Solar Energy Rejected	40	39
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	47	-
SHGR (%)	Solar Heat Gain Reduction	31	21

E	Emissivity	0,78	
U (W/m ² K)	Winter U-Factor (W/m ² °C)	5,60	2,80
U Red (%)	Winter Heat Loss Reduction	3	1
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	54	49
FR (%)	Fade Reduction Factor	36	34

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	75
TS - kg/cm ²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	YES





Solar Gard® Solar Control Window Films

LX 70

Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	72	65
Re/Ri (%)	Reflectance Exterior/Interior	9/9	16/13
GL (%)	Glare Reduction	20	20

Solar Energy

TR (%)	Transmittance	36	32
A (%)	Absorptance	30	39
R (%)	Reflectance	34	29
IR (%)	IR Rejection 780 to 2500nm	95	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,52	0,57
G	Solar Heat Gain Coefficient (G-value)	0,45	0,49
SSI	Solar Selectivity Index (VLT/SHGC)	1,38	1,14
TSER (%)	Total Solar Energy Rejected	55	51
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	59	-
SHGR (%)	Solar Heat Gain Reduction	47	34

E	Emissivity	0,77	
U (W/m ² K)	Winter U-Factor (W/m ² °C)	5,66	2,66
U Red (%)	Winter Heat Loss Reduction	3	2
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	47	43
FR (%)	Fade Reduction Factor	45	42

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	75/95
TS - kg/cm ²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	YES





Solar Gard® Solar Control Window Films

LX 40

Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	42	38
Re/Ri (%)	Reflectance Exterior/Interior	6/7	13/8
GL (%)	Glare Reduction	53	53

Solar Energy

TR (%)	Transmittance	27	23
A (%)	Absorptance	45	52
R (%)	Reflectance	28	25
IR (%)	IR Rejection 780 to 2500nm	95	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,46	0,56
G	Solar Heat Gain Coefficient (G-value)	0,39	0,48
SSI	Solar Selectivity Index (VLT/SHGC)	0,91	0,68
TSER (%)	Total Solar Energy Rejected	61	52
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	65	-
SHGR (%)	Solar Heat Gain Reduction	53	35

E	Emissivity	0,75	0,77
U (W/m ² K)	Winter U-Factor (W/m ² °C)	5,66	2,66
U Red (%)	Winter Heat Loss Reduction	4	2
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	28	26
FR (%)	Fade Reduction Factor	67	65

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	75/95
TS - kg/cm ²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	YES



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Solar Gard® Solar Control Window Films

Sterling 20

Performance Results

		4 mm	4/12/4 mm
Visible Light			
TR (%)	Transmittance	23	21
Re/Ri (%)	Reflectance Exterior/Interior	45/42	46/43
GL (%)	Glare Reduction	75	74
Solar Energy			
TR (%)	Transmittance	15	13
A (%)	Absorptance	39	48
R (%)	Reflectance	46	39
IR (%)	IR Rejection 780 to 2500nm	94	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,29	0,40
G	Solar Heat Gain Coefficient (G-value)	0,25	0,35
SSI	Solar Selectivity Index (VLT/SHGC)	0,90	0,53
TSER (%)	Total Solar Energy Rejected	75	66
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	79	-
SHGR (%)	Solar Heat Gain Reduction	70	54
E	Emissivity	0,67	
U (W/m²K)	Winter U-Factor (W/m²°C)	5,36	2,57
U Red (%)	Winter Heat Loss Reduction	8	4
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	19	17
FR (%)	Fade Reduction Factor	78	77

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	YES



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Solar Gard® Solar Control Window Films

Sterling 40

Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	41	38
Re/Ri (%)	Reflectance Exterior/Interior	33/30	36/31
GL (%)	Glare Reduction	54	53

Solar Energy

TR (%)	Transmittance	27	24
A (%)	Absorptance	36	44
R (%)	Reflectance	37	32
IR (%)	IR Rejection 780 to 2500nm	87	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,43	0,50
G	Solar Heat Gain Coefficient (G-value)	0,37	0,43
SSI	Solar Selectivity Index (VLT/SHGC)	1,11	0,75
TSER (%)	Total Solar Energy Rejected	63	57
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	68	-
SHGR (%)	Solar Heat Gain Reduction	56	42

E	Emissivity	0,68	
U (W/m ² K)	Winter U-Factor (W/m ² °C)	5,39	2,58
U Red (%)	Winter Heat Loss Reduction	8	4
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	33	30
FR (%)	Fade Reduction Factor	61	59

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm ²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	YES





Solar Gard® Solar Control Window Films

Sterling 50

Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	49	45
Re/Ri (%)	Reflectance Exterior/Interior	26/24	30/26
GL (%)	Glare Reduction	45	44

Solar Energy

TR (%)	Transmittance	34	29
A (%)	Absorptance	35	43
R (%)	Reflectance	31	28
IR (%)	IR Rejection 780 to 2500nm	82	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,51	0,56
G	Solar Heat Gain Coefficient (G-value)	0,44	0,48
SSI	Solar Selectivity Index (VLT/SHGC)	1,13	0,81
TSER (%)	Total Solar Energy Rejected	56	51
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	62	-
SHGR (%)	Solar Heat Gain Reduction	48	44

E	Emissivity	0,69	
U (W/m ² K)	Winter U-Factor (W/m ² °C)	5,43	2,59
U Red (%)	Winter Heat Loss Reduction	7	4
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	38	35
FR (%)	Fade Reduction Factor	55	53

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm ²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	YES





Solar Gard® Solar Control Window Films

Sterling 60

Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	63	57
Re/Ri (%)	Reflectance Exterior/Interior	17/16	22/19
GL (%)	Glare Reduction	30	29

Solar Energy

TR (%)	Transmittance	48	40
A (%)	Absorptance	29	38
R (%)	Reflectance	23	22
IR (%)	IR Rejection 780 to 2500nm	70	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,65	0,66
G	Solar Heat Gain Coefficient (G-value)	0,56	0,57
SSI	Solar Selectivity Index (VLT/SHGC)	0,97	0,87
TSER (%)	Total Solar Energy Rejected	44	43
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	51	-
SHGR (%)	Solar Heat Gain Reduction	34	23

E	Emissivity	0,78	
U (W/m ² K)	Winter U-Factor (W/m ² °C)	5,70	2,67
U Red (%)	Winter Heat Loss Reduction	4	2
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	45	41
FR (%)	Fade Reduction Factor	47	45

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm ²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	YES



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Solar Gard® Solar Control Window Films

Sterling 70

Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	75	67
Re/Ri (%)	Reflectance Exterior/Interior	13/12	19/17
GL (%)	Glare Reduction	17	16

Solar Energy

TR (%)	Transmittance	58	48
A (%)	Absorptance	26	34
R (%)	Reflectance	16	18
IR (%)	IR Rejection 780 to 2500nm	59	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,75	0,73
G	Solar Heat Gain Coefficient (G-value)	0,65	0,63
SSI	Solar Selectivity Index (VLT/SHGC)	1,14	0,93
TSER (%)	Total Solar Energy Rejected	35	36
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	42	-
SHGR (%)	Solar Heat Gain Reduction	23	15

E	Emissivity	0,80	
U (W/m ² K)	Winter U-Factor (W/m ² °C)	5,77	2,69
U Red (%)	Winter Heat Loss Reduction	2	1
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	52	47
FR (%)	Fade Reduction Factor	39	36

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm ²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	YES





Solar Gard® Solar Control Window Films

Stainless Steel 10

Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	9	8
Re/Ri (%)	Reflectance Exterior/Interior	43/42	43/42
GL (%)	Glare Reduction	90	90

Solar Energy

TR (%)	Transmittance	9	7
A (%)	Absorptance	56	61
R (%)	Reflectance	35	32
IR (%)	IR Rejection 780 to 2500nm	90	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,30	0,45
G	Solar Heat Gain Coefficient (G-value)	0,25	0,38
SSI	Solar Selectivity Index (VLT/SHGC)	0,31	0,19
TSER (%)	Total Solar Energy Rejected	75	62
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	81	-
SHGR (%)	Solar Heat Gain Reduction	70	48

E	Emissivity	0,79	
U (W/m²K)	Winter U-Factor (W/m²°C)	5,72	2,67
U Red (%)	Winter Heat Loss Reduction	2	1
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	6	6
FR (%)	Fade Reduction Factor	93	92

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	YES





Solar Gard® Solar Control Window Films

Stainless Steel 20

Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	24	22
Re/Ri (%)	Reflectance Exterior/Interior	28/25	31/26
GL (%)	Glare Reduction	74	73

Solar Energy

TR (%)	Transmittance	21	18
A (%)	Absorptance	56	59
R (%)	Reflectance	23	23
IR (%)	IR Rejection 780 to 2500nm	78	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,44	0,57
G	Solar Heat Gain Coefficient (G-value)	0,38	0,49
SSI	Solar Selectivity Index (VLT/SHGC)	0,53	0,38
TSER (%)	Total Solar Energy Rejected	62	51
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	67	-
SHGR (%)	Solar Heat Gain Reduction	55	34

E	Emissivity	0,84	
U (W/m ² K)	Winter U-Factor (W/m ² °C)	5,87	2,71
U Red (%)	Winter Heat Loss Reduction	-	-
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	16	15
FR (%)	Fade Reduction Factor	81	80

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm ²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	YES





Solar Gard® Solar Control Window Films

Stainless Steel 30

Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	34	31
Re/Ri (%)	Reflectance Exterior/Interior	20/17	25/18
GL (%)	Glare Reduction	62	62

Solar Energy

TR (%)	Transmittance	30	25
A (%)	Absorptance	54	56
R (%)	Reflectance	16	19
IR (%)	IR Rejection 780 to 2500nm	69	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,54	0,63
G	Solar Heat Gain Coefficient (G-value)	0,46	0,54
SSI	Solar Selectivity Index (VLT/SHGC)	0,63	0,48
TSER (%)	Total Solar Energy Rejected	54	46
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	60	-
SHGR (%)	Solar Heat Gain Reduction	45	26

E	Emissivity	0,86	
U (W/m ² K)	Winter U-Factor (W/m ² °C)	5,93	2,73
U Red (%)	Winter Heat Loss Reduction	-1	-
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	24	22
FR (%)	Fade Reduction Factor	72	70

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm ²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	YES





Solar Gard® Solar Control Window Films

Stainless Steel 35

Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	42	38
Re/Ri (%)	Reflectance Exterior/Interior	15/13	21/14
GL (%)	Glare Reduction	53	53

Solar Energy

TR (%)	Transmittance	38	31
A (%)	Absorptance	49	53
R (%)	Reflectance	13	16
IR (%)	IR Rejection 780 to 2500nm	60	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,61	0,68
G	Solar Heat Gain Coefficient (G-value)	0,53	0,59
SSI	Solar Selectivity Index (VLT/SHGC)	0,69	0,56
TSER (%)	Total Solar Energy Rejected	47	41
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	56	-
SHGR (%)	Solar Heat Gain Reduction	37	21

E	Emissivity	0,88	
U (W/m ² K)	Winter U-Factor (W/m ² °C)	5,99	2,74
U Red (%)	Winter Heat Loss Reduction	-2	-1
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	29	26
FR (%)	Fade Reduction Factor	66	65

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm ²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	YES





Solar Gard® Solar Control Window Films

Silver 20

Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	16	15
Re/Ri (%)	Reflectance Exterior/Interior	58/58	58/59
GL (%)	Glare Reduction	82	81

Solar Energy

TR (%)	Transmittance	11	10
A (%)	Absorptance	39	47
R (%)	Reflectance	50	43
IR (%)	IR Rejection 780 to 2500nm	82	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,25	0,36
G	Solar Heat Gain Coefficient (G-value)	0,22	0,31
SSI	Solar Selectivity Index (VLT/SHGC)	0,64	0,42
TSER (%)	Total Solar Energy Rejected	78	69
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	82	-
SHGR (%)	Solar Heat Gain Reduction	74	58

E	Emissivity	0,70	
U (W/m ² K)	Winter U-Factor (W/m ² °C)	5,45	2,60
U Red (%)	Winter Heat Loss Reduction	7	4
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	14	13
FR (%)	Fade Reduction Factor	84	82

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm ²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	YES





Solar Gard® Solar Control Window Films

Silver 35

Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	34	32
Re/Ri (%)	Reflectance Exterior/Interior	38/36	40/37
GL (%)	Glare Reduction	62	61

Solar Energy

TR (%)	Transmittance	25	21
A (%)	Absorptance	40	47
R (%)	Reflectance	35	32
IR (%)	IR Rejection 780 to 2500nm	86	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,42	0,50
G	Solar Heat Gain Coefficient (G-value)	0,36	0,43
SSI	Solar Selectivity Index (VLT/SHGC)	0,82	0,63
TSER (%)	Total Solar Energy Rejected	64	57
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	69	-
SHGR (%)	Solar Heat Gain Reduction	58	42

E	Emissivity	0,73	
U (W/m ² K)	Winter U-Factor (W/m ² °C)	5,54	2,63
U Red (%)	Winter Heat Loss Reduction	5	3
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	28	26
FR (%)	Fade Reduction Factor	67	65

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm ²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	YES





Solar Gard® Solar Control Window Films

Silver 50

Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	53	48
Re/Ri (%)	Reflectance Exterior/Interior	23/22	27/24
GL (%)	Glare Reduction	41	40

Solar Energy

TR (%)	Transmittance	38	33
A (%)	Absorptance	39	44
R (%)	Reflectance	23	23
IR (%)	IR Rejection 780 to 2500nm	75	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,57	0,62
G	Solar Heat Gain Coefficient (G-value)	0,49	0,54
SSI	Solar Selectivity Index (VLT/SHGC)	1,06	0,9
TSER (%)	Total Solar Energy Rejected	51	46
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	57	-
SHGR (%)	Solar Heat Gain Reduction	41	27

E	Emissivity	0,77	
U (W/m ² K)	Winter U-Factor (W/m ² °C)	5,67	2,66
U Red (%)	Winter Heat Loss Reduction	3	2
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	40	37
FR (%)	Fade Reduction Factor	53	50

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm ²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	YES





Solar Gard® Solar Control Window Films

Solar Bronze 20

Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	22	20
Re/Ri (%)	Reflectance Exterior/Interior	37/36	39/37
GL (%)	Glare Reduction	76	75

Solar Energy

TR (%)	Transmittance	12	10
A (%)	Absorptance	41	51
R (%)	Reflectance	47	39
IR (%)	IR Rejection 780 to 2500nm	96	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,27	0,39
G	Solar Heat Gain Coefficient (G-value)	0,23	0,33
SSI	Solar Selectivity Index (VLT/SHGC)	0,82	0,52
TSER (%)	Total Solar Energy Rejected	77	67
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	81	-
SHGR (%)	Solar Heat Gain Reduction	73	55

E	Emissivity	0,66	
U (W/m ² K)	Winter U-Factor (W/m ² °C)	5,33	2,57
U Red (%)	Winter Heat Loss Reduction	9	5
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	13	12
FR (%)	Fade Reduction Factor	85	84

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm ²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	YES





Solar Gard® Solar Control Window Films

Solar Bronze 35

Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	35	32
Re/Ri (%)	Reflectance Exterior/Interior	29/27	32/29
GL (%)	Glare Reduction	61	61

Solar Energy

TR (%)	Transmittance	20	18
A (%)	Absorptance	39	47
R (%)	Reflectance	41	35
IR (%)	IR Rejection 780 to 2500nm	92	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,36	0,45
G	Solar Heat Gain Coefficient (G-value)	0,31	0,39
SSI	Solar Selectivity Index (VLT/SHGC)	0,97	0,70
TSER (%)	Total Solar Energy Rejected	69	61
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	74	-
SHGR (%)	Solar Heat Gain Reduction	64	47

E	Emissivity	0,68	
U (W/m ² K)	Winter U-Factor (W/m ² °C)	5,39	2,58
U Red (%)	Winter Heat Loss Reduction	7	4
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	21	19
FR (%)	Fade Reduction Factor	75	74

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm ²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	YES



recommandé par les organismes de recherche et développement du secteur





Solar Gard® Solar Control Window Films

Silver AG 50 Low-E

Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	51	47
Re/Ri (%)	Reflectance Exterior/Interior	23/27	28/29
GL (%)	Glare Reduction	43	43

Solar Energy

TR (%)	Transmittance	36	32
A (%)	Absorptance	37	40
R (%)	Reflectance	27	28
IR (%)	IR Rejection 780 to 2500nm	83	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
G	Solar Heat Gain Coefficient (G-value)	0,42	0,49
SSI	Solar Selectivity Index (VLT/SHGC)	1,20	0,96
TSER (%)	Total Solar Energy Rejected	58	51
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	63	-
SHGR (%)	Solar Heat Gain Reduction	51	37

E	Emissivity	0,37	
U (W/m ² K)	Winter U-Factor (W/m ² °C)	4,40	2,40
U Red (%)	Winter Heat Loss Reduction	24	14
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	39	35
FR (%)	Fade Reduction Factor	54	53

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50
TS - kg/cm ²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	YES



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Solar Gard® Solar Control Window Films

Sentinel™ Plus Silver 20



Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	16	15
Re/Ri (%)	Reflectance Exterior/Interior	61/57	62/57
GL (%)	Glare Reduction	82	82

Solar Energy

TR (%)	Transmittance	11	10
A (%)	Absorptance	25	26
R (%)	Reflectance	64	64
IR (%)	IR Rejection 780 to 2500nm	96	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,21	0,16
G	Solar Heat Gain Coefficient (G-value)	0,18	0,14
SSI	Solar Selectivity Index (VLT/SHGC)	0,74	0,91
TSER (%)	Total Solar Energy Rejected	82	86
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	84	-
SHGR (%)	Solar Heat Gain Reduction	78	81

E	Emissivity	0,84	
U (W/m²K)	Winter U-Factor (W/m²°C)	5,86	2,71
U Red (%)	Winter Heat Loss Reduction	-	-
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	13	13
FR (%)	Fade Reduction Factor	85	82

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	YES





Solar Gard® Solar Control Window Films

Sentinel™ Plus Silver 35



Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	34	31
Re/Ri (%)	Reflectance Exterior/Interior	41/37	42/39
GL (%)	Glare Reduction	62	61

Solar Energy

TR (%)	Transmittance	25	21
A (%)	Absorptance	29	33
R (%)	Reflectance	46	46
IR (%)	IR Rejection 780 to 2500nm	92	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,39	0,31
G	Solar Heat Gain Coefficient (G-value)	0,33	0,27
SSI	Solar Selectivity Index (VLT/SHGC)	0,87	0,99
TSER (%)	Total Solar Energy Rejected	67	73
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	70	-
SHGR (%)	Solar Heat Gain Reduction	61	63

E	Emissivity	0,84	
U (W/m²K)	Winter U-Factor (W/m²°C)	5,86	2,71
U Red (%)	Winter Heat Loss Reduction	-	-
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	27	24
FR (%)	Fade Reduction Factor	68	68

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	YES





Solar Gard® Solar Control Window Films

Sentinel™ Plus SX 50



Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	48	44
Re/Ri (%)	Reflectance Exterior/Interior	27/25	29/28
GL (%)	Glare Reduction	47	46

Solar Energy

TR (%)	Transmittance	35	29
A (%)	Absorptance	32	37
R (%)	Reflectance	33	34
IR (%)	IR Rejection 780 to 2500nm	78	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,52	0,42
G	Solar Heat Gain Coefficient (G-value)	0,44	0,37
SSI	Solar Selectivity Index (VLT/SHGC)	1,08	1,19
TSER (%)	Total Solar Energy Rejected	56	63
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	61	-
SHGR (%)	Solar Heat Gain Reduction	47	50

E

E	Emissivity	0,78	
U (W/m²K)	Winter U-Factor (W/m²°C)	5,86	2,71
U Red (%)	Winter Heat Loss Reduction	-	-
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	36	33
FR (%)	Fade Reduction Factor	58	55

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	YES





Solar Gard® Solar Control Window Films

Sentinel Plus SX 80 OSW

**OSW
Exterior
Film**

Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	78	71
Re/Ri (%)	Reflectance Exterior/Interior	8/8	13/15
GL (%)	Glare Reduction	13	13

Solar Energy

TR (%)	Transmittance	44	39
A (%)	Absorptance	49	52
R (%)	Reflectance	7	9
IR (%)	IR Rejection 780 to 2500nm	84	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
G	Solar Heat Gain Coefficient (G-value)	0,56	0,46
SSI	Solar Selectivity Index (VLT/SHGC)	1,40	1,53
TSER (%)	Total Solar Energy Rejected	44	54
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	51	62
SHGR (%)	Solar Heat Gain Reduction	36	40

E	Emissivity	0,87	
U (W/m ² K)	Winter U-Factor (W/m ² °C)	5,70	2,80
U Red (%)	Winter Heat Loss Reduction	0	0
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	54	49
FR (%)	Fade Reduction Factor	26	23

Physical Properties

Tnom / T(μm)	Thickness Nominal / Overall	50	
TS - kg/cm ²	Tensile strength	2100 kg	
EPD	Environmental Product Declaration	YES	



Solar Gard® Solar Control Window Films

Sentinel™ Plus Stainless Steel 15



Performance Results

4 mm

4/12/4 mm

Visible Light

TR (%)	Transmittance	13	12
Re/Ri (%)	Reflectance Exterior/Interior	40/36	40/-
GL (%)	Glare Reduction	85	85

Solar Energy

TR (%)	Transmittance	13	11
A (%)	Absorptance	49	51
R (%)	Reflectance	38	38
IR (%)	IR Rejection 780 to 2500nm	92	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,32	0,23
G	Solar Heat Gain Coefficient (G-value)	0,27	0,19
SSI	Solar Selectivity Index (VLT/SHGC)	0,41	0,54
TSER (%)	Total Solar Energy Rejected	73	81
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	78	-
SHGR (%)	Solar Heat Gain Reduction	68	74

E	Emissivity	0,83	
U (W/m²K)	Winter U-Factor (W/m²°C)	5,87	2,71
U Red (%)	Winter Heat Loss Reduction	-	-
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	4	8
FR (%)	Fade Reduction Factor	89	89

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	YES



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Solar Gard® Solar Control Window Films

Sentinel™ Plus Stainless Steel 25

OSW
Exterior
Film

Performance Results

4 mm

4/12/4 mm

Visible Light

TR (%)	Transmittance	24	22
Re/Ri (%)	Reflectance Exterior/Interior	28/26	29/30
GL (%)	Glare Reduction	74	73

Solar Energy

TR (%)	Transmittance	22	18
A (%)	Absorptance	51	55
R (%)	Reflectance	27	27
IR (%)	IR Rejection 780 to 2500nm	86	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,44	0,33
G	Solar Heat Gain Coefficient (G-value)	0,37	0,28
SSI	Solar Selectivity Index (VLT/SHGC)	0,54	0,66
TSER (%)	Total Solar Energy Rejected	63	72
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	69	-
SHGR (%)	Solar Heat Gain Reduction	56	62

E	Emissivity	0,86	
U (W/m²K)	Winter U-Factor (W/m²°C)	5,88	2,72
U Red (%)	Winter Heat Loss Reduction	-	-
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	8	15
FR (%)	Fade Reduction Factor	81	80

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	YES

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Solar Gard® Solar Control Window Films

Sentinel™ Plus Stainless Steel 40



Performance Results

4 mm

4/12/4 mm

Visible Light

TR (%)	Transmittance	39	35
Re/Ri (%)	Reflectance Exterior/Interior	18/15	19/21
GL (%)	Glare Reduction	57	57

Solar Energy

TR (%)	Transmittance	36	30
A (%)	Absorptance	46	51
R (%)	Reflectance	18	19
IR (%)	IR Rejection 780 to 2500nm	79	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,58	0,46
G	Solar Heat Gain Coefficient (G-value)	0,50	0,39
SSI	Solar Selectivity Index (VLT SHGC)	0,67	0,77
TSER (%)	Total Solar Energy Rejected	50	61
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	58	-
SHGR (%)	Solar Heat Gain Reduction	41	47

E	Emissivity	0,87	
U (W/m²K)	Winter U-Factor (W/m²°C)	5,88	2,72
U Red (%)	Winter Heat Loss Reduction	-	-
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	26	24
FR (%)	Fade Reduction Factor	69	68

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	YES



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pour un développement durable



Solar Gard® Solar Control Window Films

Sentinel™ Plus Stainless Steel 45



OSW
Exterior
Film

Performance Results		4 mm	4/12/4 mm
Visible Light			
TR (%)	Transmittance	46	42
Re/Ri (%)	Reflectance Exterior/Interior	15/12	17/18
GL (%)	Glare Reduction	48	48
Solar Energy			
TR (%)	Transmittance	43	35
A (%)	Absorptance	43	49
R (%)	Reflectance	14	16
IR (%)	IR Rejection 780 to 2500nm	75	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,55	0,52
G	Solar Heat Gain Coefficient (G-value)	0,72	0,45
SSI	Solar Selectivity Index (VLT SHGC)	0,84	0,81
TSER (%)	Total Solar Energy Rejected	45	55
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	53	-
SHGR (%)	Solar Heat Gain Reduction	35	39
E	Emissivity	0,88	
U (W/m²K)	Winter U-Factor (W/m²°C)	5,88	2,72
U Red (%)	Winter Heat Loss Reduction	-	-
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	31	28
FR (%)	Fade Reduction Factor	64	62

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	YES



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Solar Gard® Solar Control Window Films

TrueVue™ 5

Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	5	5
Re/Ri (%)	Reflectance Exterior/Interior	45/8	46/8
GL (%)	Glare Reduction	94	94

Solar Energy

TR (%)	Transmittance	6	5
A (%)	Absorptance	45	54
R (%)	Reflectance	49	41
IR (%)	IR Rejection 780 to 2500nm	96	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,22	0,36
G	Solar Heat Gain Coefficient (G-value)	0,18	0,31
SSI	Solar Selectivity Index (VLT/SHGC)	0,28	0,13
TSER (%)	Total Solar Energy Rejected	82	69
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	85	-
SHGR (%)	Solar Heat Gain Reduction	78	59

E	Emissivity	0,75	
U (W/m ² K)	Winter U-Factor (W/m ² °C)	5,60	2,64
U Red (%)	Winter Heat Loss Reduction	4	2
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	5	4
FR (%)	Fade Reduction Factor	94	95

Physical Properties

Tnom / T(μm)	Thickness Nominal / Overall	50/75
TS - kg/cm ²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	Y



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Solar Gard® Solar Control Window Films

TrueVue™ 15

Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	12	11
Re/Ri (%)	Reflectance Exterior/Interior	45/23	46/23
GL (%)	Glare Reduction	86	86

Solar Energy

TR (%)	Transmittance	9	8
A (%)	Absorptance	42	51
R (%)	Reflectance	49	41
IR (%)	IR Rejection 780 to 2500nm	95	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,24	0,37
G	Solar Heat Gain Coefficient (G-value)	0,21	0,32
SSI	Solar Selectivity Index (VLT/SHGC)	0,50	0,30
TSER (%)	Total Solar Energy Rejected	79	68
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	83	-
SHGR (%)	Solar Heat Gain Reduction	76	57

E	Emissivity	0,75	
U (W/m²K)	Winter U-Factor (W/m²°C)	5,60	2,64
U Red (%)	Winter Heat Loss Reduction	4	2
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	10	9
FR (%)	Fade Reduction Factor	88	88

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	Y



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Solar Gard® Solar Control Window Films

TrueVue™ 30

Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	31	39
Re/Ri (%)	Reflectance Exterior/Interior	43/30	27/14
GL (%)	Glare Reduction	65	65

Solar Energy

TR (%)	Transmittance	27	22
A (%)	Absorptance	43	51
R (%)	Reflectance	30	27
IR (%)	IR Rejection 780 to 2500nm	82	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,45	0,54
G	Solar Heat Gain Coefficient (G-value)	0,39	0,46
SSI	Solar Selectivity Index (VLT/SHGC)	0,69	0,53
TSER (%)	Total Solar Energy Rejected	61	54
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	67	-
SHGR (%)	Solar Heat Gain Reduction	54	37

E	Emissivity	0,75	
U (W/m²K)	Winter U-Factor (W/m²°C)	5,60	2,64
U Red (%)	Winter Heat Loss Reduction	4	2
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	23	21
FR (%)	Fade Reduction Factor	73	72

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	Y





Solar Gard® Solar Control Window Films

TrueVue™ 40

Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	39	35
Re/Ri (%)	Reflectance Exterior/Interior	14/10	20/11
GL (%)	Glare Reduction	56	56

Solar Energy

TR (%)	Transmittance	37	30
A (%)	Absorptance	42	49
R (%)	Reflectance	21	21
IR (%)	IR Rejection 780 to 2500nm	70	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,56	0,62
G	Solar Heat Gain Coefficient (G-value)	0,49	0,54
SSI	Solar Selectivity Index (VLT/SHGC)	0,69	0,57
TSER (%)	Total Solar Energy Rejected	51	46
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	59	-
SHGR (%)	Solar Heat Gain Reduction	42	27

E	Emissivity	0,75	
U (W/m²K)	Winter U-Factor (W/m²°C)	5,60	2,64
U Red (%)	Winter Heat Loss Reduction	4	2
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	28	25
FR (%)	Fade Reduction Factor	67	66

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	Y



recommandé pour son développement durable



Solar Gard® Solar Control Window Films

Grey/Silver/Grey 10

Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	6	5
Re/Ri (%)	Reflectance Exterior/Interior	10/10	17/10
GL (%)	Glare Reduction	94	94

Solar Energy

TR (%)	Transmittance	11	9
A (%)	Absorptance	65	68
R (%)	Reflectance	24	23
IR (%)	IR Rejection 780 to 2500nm	88	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,35	0,52
G	Solar Heat Gain Coefficient (G-value)	0,30	0,45
SSI	Solar Selectivity Index (VLT/SHGC)	0,16	0,10
TSER (%)	Total Solar Energy Rejected	70	55
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	77	-
SHGR (%)	Solar Heat Gain Reduction	64	39

E	Emissivity	0,79	
U (W/m ² K)	Winter U-Factor (W/m ² °C)	5,72	2,67
U Red (%)	Winter Heat Loss Reduction	1	-
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	5	4
FR (%)	Fade Reduction Factor	94	95

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm ²	Tensile strength	2100 kg
EPD	Environmental Product Declaration	Y





Solar Gard® Solar Control Window Films

Clear Frost

Performance Results		4 mm	4/12/4 mm
Visible Light			
TR (%)	Transmittance	65	59
Re/Ri (%)	Reflectance Exterior/Interior	25/27	29/30
GL (%)	Glare Reduction	28	27
Solar Energy			
TR (%)	Transmittance	60	50
A (%)	Absorptance	21	29
R (%)	Reflectance	19	21
IR (%)	IR Rejection 780 to 2500nm	-	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,76	0,71
G	Solar Heat Gain Coefficient (G-value)	0,66	0,62
SSI	Solar Selectivity Index (VLT/SHGC)	0,85	0,85
TSER (%)	Total Solar Energy Rejected	33	37
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	-	-
SHGR (%)	Solar Heat Gain Reduction	22	16
E	Emissivity	0,87	
U (W/m ² K)	Winter U-Factor (W/m ² °C)	5,96	2.82
U Red (%)	Winter Heat Loss Reduction	-	-
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	45	41
FR (%)	Fade Reduction Factor	47	45

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm ²	Tensile strength	2100 kg



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Solar Gard® Solar Control Window Films

White Opaque

Performance Results

4 mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	9	9
Re/Ri (%)	Reflectance Exterior/Interior	70/84	68/84
GL (%)	Glare Reduction	90	89

Solar Energy

TR (%)	Transmittance	14	12
A (%)	Absorptance	33	42
R (%)	Reflectance	53	46
IR (%)	IR Rejection 780 to 2500nm	-	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,28	0,36
G	Solar Heat Gain Coefficient (G-value)	0,24	0,31
SSI	Solar Selectivity Index (VLT/SHGC)	0,33	0,24
TSER (%)	Total Solar Energy Rejected	76	69
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	-	-
SHGR (%)	Solar Heat Gain Reduction	72	58

E	Emissivity	0,88	
U (W/m²K)	Winter U-Factor (W/m²°C)	5,99	2,74
U Red (%)	Winter Heat Loss Reduction	-	-
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	7	6
FR (%)	Fade Reduction Factor	92	92

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	50/75
TS - kg/cm²	Tensile strength	2100 kg



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pour un développement durable





Solar Gard® Solar Control Window Films

Black Opaque

Performance Results		4 mm	4/12/4 mm
Visible Light			
TR (%)	Transmittance	0	0
Re/Ri (%)	Reflectance Exterior/Interior	13/7	13/7
GL (%)	Glare Reduction	100	100
Solar Energy			
TR (%)	Transmittance	0	0
A (%)	Absorptance	95	89
R (%)	Reflectance	11	11
IR (%)	IR Rejection 780 to 2500nm	-	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
SC	Shading Coefficient	0,35	0,60
G	Solar Heat Gain Coefficient (G-value)	0,30	0,51
SSI	Solar Selectivity Index (VLT/SHGC)	0	0
TSER (%)	Total Solar Energy Rejected	70	49
TSER (%) -60°	Total Solar Energy Rejected at 60° angle	-	-
SHGR (%)	Solar Heat Gain Reduction	65	31
E	Emissivity	0,87	
U (W/m ² K)	Winter U-Factor (W/m ² °C)	5,96	2,74
U Red (%)	Winter Heat Loss Reduction	-	-
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	0	0
FR (%)	Fade Reduction Factor	100	100
Physical Properties			
Tnom / T(μm)	Thickness Nominal / Overall	50/75	
TS - kg/cm ²	Tensile strength	2100 kg	



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Solar Gard® Solar Control and Safety & Security Window Films

AC 2 Mil Clear

Performance Results

	4mm	4/12/4 mm
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Visible Light

TR (%)	Transmittance	85	77
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Solar Energy

IR (%)	IR Rejection 780 to 2500nm	23	-
UV (%)	UV @300 to 380 nm	>99	>99
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	63	57
FR (%)	Fade Reduction Factor	26	23

Physical Properties

Tnom / T(μm)	Thickness Nominal / Overall	50/75
TS- kg/cm ²	Tensile strength	2,11
ELONG	Elongation	>100%
PEEL - g/cm	Peel Strength	>985
YIELD - kg/cm ²	Yield Strength (at 5%)	5,4
BREAK - kg/cm	Break Strength	11
TEAR - kg	Tear Strength (Graves)	1,5
PUNC - kg	Puncture Strength	16

Safety Testing ⁽¹⁾

EN 12600	Human Impact	N/A
EN 356	Resistance to Manual Attack	N/A
ISO 16933, GSA or ASTM	Bomb Blast Resistance	N/A

⁽¹⁾ for details on available safety testing and test reports, consult www.solargard.com or inquire with your local authorized dealer/distributor.



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Solar Gard® Solar Control and Safety & Security Window Films

AC 4 Mil Clear

Performance Results

4mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	89	80
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Solar Energy

IR (%)	IR Rejection 780 to 2500nm	24	-
UV (%)	UV @300 to 380 nm	>99	>99
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	63	57
FR (%)	Fade Reduction Factor	26	23

Physical Properties

Tnom / T(μm)	Thickness Nominal / Overall	100/125
TS- kg/cm²	Tensile strength	2,11
ELONG	Elongation	>100%
PEEL - g/cm	Peel Strength	>985
YIELD - kg/cm²	Yield Strength (at 5%)	10,8
BREAK - kg/cm	Break Strength	22
TEAR - kg	Tear Strength (Graves)	3
PUNC - kg	Puncture Strength	32

Safety Testing ⁽¹⁾

EN 12600	Human Impact	2B2
EN 356	Resistance to Manual Attack	N/A
ISO 16933, GSA or ASTM	Bomb Blast Resistance	N/A

⁽¹⁾ for details on available safety testing and test reports, consult www.solargard.com or inquire with your local authorized dealer/distributor.



Solar Gard® Solar Control and Safety & Security Window Films

AC 7 Mil Clear

Performance Results

4mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	88	80
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Solar Energy

IR (%)	IR Rejection 780 to 2500nm	26	-
UV (%)	UV @300 to 380 nm	>99	>99
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	63	57
FR (%)	Fade Reduction Factor	26	23

Physical Properties

Tnom / T(μm)	Thickness Nominal / Overall	175/200
TS- kg/cm ²	Tensile strength	2,11
ELONG	Elongation	>100%
PEEL - g/cm	Peel Strength	>985
YIELD - kg/cm ²	Yield Strength (at 5%)	18,9
BREAK - kg/cm	Break Strength	38,5
TEAR - kg	Tear Strength (Graves)	5,3
PUNC - kg	Puncture Strength	52,7

Safety Testing ⁽¹⁾

EN 12600	Human Impact	1B1
EN 356	Resistance to Manual Attack	N/A
ISO 16933, GSA or ASTM	Bomb Blast Resistance	N/A

⁽¹⁾ for details on available safety testing and test reports, consult www.solargard.com or inquire with your local authorized dealer/distributor.



Solar Gard® Solar Control and Safety & Security Window Films

AC 8 Mil Clear



Performance Results

4mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	84	76
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Solar Energy

IR (%)	IR Rejection 780 to 2500nm	28	-
UV (%)	UV @300 to 380 nm	>99	>99
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	62	56
FR (%)	Fade Reduction Factor	27	24

Physical Properties

Tnom / T(μ m)	Thickness Nominal / Overall	200/225
TS- kg/cm ²	Tensile strength	2,11
ELONG	Elongation	>100%
PEEL - g/cm	Peel Strength	>985
YIELD - kg/cm ²	Yield Strength (at 5%)	21,6
BREAK - kg/cm	Break Strength	44
TEAR - kg	Tear Strength (Graves)	6
PUNC - kg	Puncture Strength	60

Safety Testing⁽¹⁾

EN 12600	Human Impact	1B1
EN 356	Resistance to Manual Attack	Y
ISO 16933, GSA or ASTM	Bomb Blast Resistance	Y

⁽¹⁾ for details on available safety testing and test reports, consult www.solargard.com or inquire with your local authorized dealer/distributor.





Solar Gard® Solar Control and Safety & Security Window Films

AC 10 Mil Clear



Performance Results

4mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	87	79
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Solar Energy

IR (%)	IR Rejection 780 to 2500nm	28	-
UV (%)	UV @300 to 380 nm	>99	>99
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	62	56
FR (%)	Fade Reduction Factor	27	24

Physical Properties

Tnom / T(μm)	Thickness Nominal / Overall	250/275
TS- kg/cm ²	Tensile strength	2,11
ELONG	Elongation	>100%
PEEL - g/cm	Peel Strength	>985
YIELD - kg/cm ²	Yield Strength (at 5%)	27
BREAK - kg/cm	Break Strength	55
TEAR - kg	Tear Strength (Graves)	7,5
PUNC - kg	Puncture Strength	78

Safety Testing ⁽¹⁾

EN 12600	Human Impact	1B1
EN 356	Resistance to Manual Attack	Y
ISO 16933, GSA or ASTM	Bomb Blast Resistance	Y

⁽¹⁾ for details on available safety testing and test reports, consult www.solargard.com or inquire with your local authorized dealer/distributor.



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Solar Gard® Solar Control and Safety & Security Window Films

AC 11 Mil Clear



Performance Results

4mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	88	79
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Solar Energy

IR (%)	IR Rejection 780 to 2500nm	30	-
UV (%)	UV @300 to 380 nm	>99	>99
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	62	56
FR (%)	Fade Reduction Factor	27	24

Physical Properties

Tnom / T(μm)	Thickness Nominal / Overall	275/300
TS - kg/cm²	Tensile strength	2,11
ELONG	Elongation	>100%
PEEL - g/cm	Peel Strength	>985
YIELD - kg/cm²	Yield Strength (at 5%)	29,7
BREAK - kg/cm	Break Strength	60,5
TEAR - kg	Tear Strength (Graves)	8,3
PUNC - kg	Puncture Strength	83,9

Safety Testing (1)

EN 12600	Human Impact	1B1
EN 356	Resistance to Manual Attack	Y
ISO 16933, GSA or ASTM	Bomb Blast Resistance	Y

(1) for details on available safety testing and test reports, consult www.solargard.com or inquire with your local authorized dealer/distributor.





Solar Gard® Solar Control and Safety & Security Window Films

AC 14 Mil Clear



Performance Results

4mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	4mm	4/12/4 mm
		87	79

Solar Energy

IR (%)	IR Rejection 780 to 2500nm	32	-
UV (%)	UV @300 to 380 nm	>99	>99
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	62	56
FR (%)	Fade Reduction Factor	27	24

Physical Properties

Tnom / T(µm)	Thickness Nominal / Overall	350/375
TS- kg/cm ²	Tensile strength	2,11
ELONG	Elongation	>100%
PEEL - g/cm	Peel Strength	>985
YIELD - kg/cm ²	Yield Strength (at 5%)	37,8
BREAK - kg/cm	Break Strength	77
TEAR - kg	Tear Strength (Graves)	10,5
PUNC - kg	Puncture Strength	104,3

Safety Testing ⁽¹⁾

EN 12600	Human Impact	1B1
EN 356	Resistance to Manual Attack	Y
ISO 16933, GSA or ASTM	Bomb Blast Resistance	Y

⁽¹⁾ for details on available safety testing and test reports, consult www.solargard.com or inquire with your local authorized dealer/distributor.





Solar Gard® Solar Control and Safety & Security Window Films

Sentinel™ Plus 4 Mil Clear

Performance Results

		4mm	4/12/4 mm
Visible Light			
TR (%)	Transmittance	89	81
Solar Energy			
IR (%)	IR Rejection 780 to 2500nm	60	-
UV (%)	UV @300 to 380 nm	>99	>99
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	60	55
FR (%)	Fade Reduction Factor	29	26

Physical Properties

Tnom / T(μm)	Thickness Nominal / Overall	100/125
TS- kg/cm²	Tensile strength	2,11
ELONG	Elongation	>100%
PEEL - g/cm	Peel Strength	>985
YIELD - kg/cm²	Yield Strength (at 5%)	10,8
BREAK - kg/cm	Break Strength	22
TEAR - kg	Tear Strength (Graves)	3
PUNC - kg	Puncture Strength	32

Safety Testing ⁽¹⁾

EN 12600	Human Impact	3B3
EN 356	Resistance to Manual Attack	N/A
ISO 16933, GSA or ASTM	Bomb Blast Resistance	N/A

⁽¹⁾ for details on available safety testing and test reports, consult www.solargard.com or inquire with your local authorized dealer/distributor.



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Solar Gard® Solar Control and Safety & Security Window Films

4 Mil Stainless Steel 35

Performance Results

4mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	44	40
Solar Energy			
TR (%)	Transmittance	41	33
IR (%)	IR Rejection 780 to 2500 nm	58	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
G	Solar Heat Gain Coefficient (G-value)	0,54	0,59
TSER (%)	Total Solar Energy Rejected	46	41
SHGR (%)	Solar Heat Gain Reduction	36	20
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	32	29
FR (%)	Fade Reduction Factor	62	61

Physical Properties

Tnom/T(µm)	Thickness Nominal / Overall	100/150
TS- kg/cm ²	Tensile strength	2,11
ELONG	Elongation	>100%
PEEL-g/cm	Peel Strength	>985
YIELD-kg/cm ²	Yield Strength (at 5%)	10,8
BREAK-kg/cm	Break Strength	22
TEAR-kg	Tear Strength (Graves)	3
PUNC-kg	Puncture Strength	32

Safety Testing

(For details on safety testing and test reports, consult www.solargard.com or contact your local authorized dealer/distributor.)

EN 12600	Human Impact	2B2
EN 356	Resistance to Manual Attack	N/A
ISO 16933, GSA or ASTM	Bomb Blast Resistance	N/A



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plateforme de recherche



Solar Gard® Solar Control and Safety & Security Window Films

4 Mil Stainless Steel 50

Performance Results

4mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	47	42
Solar Energy			
IR (%)	IR Rejection 780 to 2500 nm	58	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
G	Solar Heat Gain Coefficient (G-value)	0,56	0,60
TSER (%)	Total Solar Energy Rejected	44	40
SHGR (%)	Solar Heat Gain Reduction	34	18
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	33	30
FR (%)	Fade Reduction Factor	61	59

Physical Properties

Tnom/T(μm)	Thickness Nominal / Overall	100/150
TS- kg/cm ²	Tensile strength	2,11
ELONG	Elongation	>100%
PEEL-g/cm	Peel Strength	>985
YIELD-kg/cm ²	Yield Strength (at 5%)	10,8
BREAK-kg/cm	Break Strength	22
TEAR-kg	Tear Strength (Graves)	3
PUNC-kg	Puncture Strength	32

Safety Testing

(For details on safety testing and test reports, consult www.solargard.com or contact your local authorized dealer/distributor.)

EN 12600	Human Impact	2B2
EN 356	Resistance to Manual Attack	N/A
ISO 16933, GSA or ASTM	Bomb Blast Resistance	N/A



Solar Gard® Solar Control and Safety & Security Window Films

8 Mil Silver 20



Performance Results

4mm 4/12/4 mm

Visible Light

TR (%)	Transmittance	14	14
Solar Energy			
TR (%)	Transmittance	10	9
IR (%)	IR Rejection 780 to 2500 nm	95	-
UV (%)	UV blocked @300 to 380 nm	>99	>99
G	Solar Heat Gain Coefficient (G-value)	0,21	0,31
TSER (%)	Total Solar Energy Rejected	79	69
SHGR (%)	Solar Heat Gain Reduction	75	58
Tdw (%)	Fade Control UV Tdw-ISO @300 to 700 nm	13	12
FR (%)	Fade Reduction Factor	85	84

Physical Properties

Tnom/T(µm)	Thickness Nominal / Overall	200/250
TS- kg/cm ²	Tensile strength	2,11
ELONG	Elongation	>100%
PEEL-g/cm	Peel Strength	>985
YIELD-kg/cm ²	Yield Strength (at 5%)	21,6
BREAK-kg/cm	Break Strength	44
TEAR-kg	Tear Strength (Graves)	6
PUNC-kg	Puncture Strength	60

Safety Testing

(For details on safety testing and test reports, consult www.solargard.com or contact your local authorized dealer/distributor.)

EN 12600	Human Impact	1B1
EN 356	Resistance to Manual Attack	Y
ISO 16933, GSA or ASTM	Bomb Blast Resistance	Y



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Solar Gard® Solar Control Window Films

Solar Energy Technical Definitions

Solar transmittance The percent of incident solar radiation that is transmitted through the window film/glass system. The lower the number, the less solar radiation transmitted.

Solar absorptance The percent of incident solar radiation that is absorbed by the window film/glass system. The lower the number, the less solar radiation absorbed.

Solar reflectance The percent of incident solar radiation that is reflected by the window film/glass system. The lower the number, the less solar radiation reflected.

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

Emissivity The measure of a surface's ability to absorb or reflect far-infrared radiation. The lower the emissivity rating, the better the insulating qualities of the window film/glass system.

Winter U-Factor The amount of heat energy which transfers through an area of 1m² with a temperature difference of 1°C. The lower the U-factor, the better insulating qualities of the window film/glass system.

Shading coefficient The ratio of solar heat passing through window film to the solar heat gain that occurs under the same conditions if the window were made of clear, unshaded double strength window glass. The lower the number, the better solar shading qualities of the window film/glass system.

Solar heat gain coefficient The ratio of the total solar heat passing through a given window product relative to the solar heat incident on the projected window surface at normal solar incidence (i.e. perpendicular to the glazing surface). The lower the coefficient number for a particular window film/glass system, the better it is able to reduce heat.

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

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) is 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)



Protect. Save. Renew. Smart solutions that positively impact lives.

About Solar Gard®

Solar Gard positively impacts lives with products that protect, save and renew. Headquartered in San Diego, California, Solar Gard makes industry leading architectural and automotive window films, photovoltaics and custom coatings. A division of Saint-Gobain Performance Plastics, a subsidiary of Saint-Gobain, the world leader in the habitat and construction markets, Solar Gard's architectural solar control window films are proven carbon negative and reduce global greenhouse gas emissions. Solar Gard products are sold in more than 90 countries under the Solar Gard®, Quantum® and Solar Gard Armorcoat® brands. For more information, visit www.solargard.com.

www.solargard.com

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