Solar Control And Safety Film Selector Guide

Solar Gard® Architectural Window Films For Solar And Safety Solutions

Solar Gard®
SAINT-GOBAIN

Solar Gard® Solar Control Window Films

PureVue™ 70

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	73	72	64
Reflectance exterior %	8	8	15
Reflectance interior %	8	8	12
Glare reduction %	19	19	19
Solar energy			
Total solar energy rejected %	37	39	37
Solar heat gain coefficient	.63	.61	.63
Energy distribution			
Transmittance %	48	46	37
Absorptance %	46	48	52
Reflectance %	6	6	11
Thermal energy			
Emissivity	.92	.92	.92
Winter U-Factor (BTU hr/ft^2 ºF)	1.08	1.07	.48
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	51	51	45
Fade reduction %	40	38	36
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

PureVue™ 60

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	61	61	54
Reflectance exterior %	11	11	17
Reflectance interior %	9	9	12
Glare reduction %	32	32	32
Solar energy			
Total solar energy rejected %	39	40	39
Solar heat gain coefficient	.61	.60	.61
Energy distribution			
Transmittance %	49	45	36
Absorptance %	40	45	51
Reflectance %	11	10	13
Thermal energy			
Emissivity	.89	.89	.89
Winter U-Factor (BTU hr/ft^2 ºF)	1.06	1.05	.48
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	40	40	36
Fade reduction %	53	51	49
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

PureVue™ 50

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	51	50	45
Reflectance exterior %	13	13	19
Reflectance interior %	11	11	13
Glare reduction %	44	44	43
Solar energy			
Total solar energy rejected %	47	48	43
Solar heat gain coefficient	.53	.52	.57
Energy distribution			
Transmittance %	38	35	28
Absorptance %	48	52	57
Reflectance %	14	13	15
Thermal energy			
Emissivity	.86	.86	.86
Winter U-Factor (BTU hr/ft^2 ºF)	1.05	1.04	.48
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	34	33	30
Fade reduction %	60	60	57
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

PureVue™ 35

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	37	37	33
Reflectance exterior %	17	16	22
Reflectance interior %	15	15	17
Glare reduction %	59	59	58
Solar energy			
Total solar energy rejected %	58	58	49
Solar heat gain coefficient	.42	.42	.51
Energy distribution			
Transmittance %	25	24	20
Absorptance %	55	59	62
Reflectance %	20	17	18
Thermal energy			
Emissivity	.82	.82	.82
Winter U-Factor (BTU hr/ft^2 ºF)	1.02	1.01	.47
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	26	25	23
Fade reduction %	69	70	67
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

TrueVue™ 40

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	39	39	35
Reflectance exterior %	14	14	20
Reflectance interior %	10	10	11
Glare reduction %	56	56	56
Solar energy			
Total solar energy rejected %	51	52	47
Solar heat gain coefficient	.49	.48	.53
Energy distribution			
Transmittance %	36	34	26
Absorptance %	44	49	56
Reflectance %	20	17	18
Thermal energy			
Emissivity	.75	.75	.75
Winter U-Factor (BTU hr/ft² °F)	.99	.98	.46
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	28	28	25
Fade reduction %	67	66	64
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

TrueVue™ 30

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	31	31	28
Reflectance exterior %	22	22	26
Reflectance interior %	13	13	14
Glare reduction %	65	65	65
Solar energy			
Total solar energy rejected %	61	61	53
Solar heat gain coefficient	.39	.39	.47
Energy distribution			
Transmittance %	26	25	20
Absorptance %	45	50	58
Reflectance %	29	25	22
Thermal energy			
Emissivity	.75	.75	.75
Winter U-Factor (BTU hr/ft^2 ºF)	.99	.98	.46
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	23	23	20
Fade reduction %	73	72	71
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

TrueVue™ 15

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	12	12	11
Reflectance exterior %	45	44	44
Reflectance interior %	23	23	23
Glare reduction %	87	86	86
Solar energy			
Total solar energy rejected %	78	77	65
Solar heat gain coefficient	.22	.23	.35
Energy distribution			
Transmittance %	9	8	7
Absorptance %	44	51	60
Reflectance %	47	41	33
Thermal energy			
Emissivity	.75	.75	.75
Winter U-Factor (BTU hr/ft^2 ºF)	.99	.98	.46
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	10	10	9
Fade reduction %	88	88	87
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

TrueVue™ 5

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	5	5	5
Reflectance exterior %	45	44	44
Reflectance interior %	8	8	8
Glare reduction %	94	94	94
Solar energy			
Total solar energy rejected %	81	79	66
Solar heat gain coefficient	.19	.21	.34
Energy distribution			
Transmittance %	6	5	4
Absorptance %	46	54	63
Reflectance %	48	41	33
Thermal energy			
Emissivity	.75	.75	.75
Winter U-Factor (BTU hr/ft^2 ºF)	.99	.98	.46
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	5	4	4
Fade reduction %	94	95	94
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

Stainless Steel 50

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	48	48	43
Reflectance exterior %	13	13	19
Reflectance interior %	11	11	13
Glare reduction %	46	46	46
Solar energy			
Total solar energy rejected %	42	44	41
Solar heat gain coefficient	.58	.56	.59
Energy distribution			
Transmittance %	44	41	32
Absorptance %	44	48	54
Reflectance %	12	11	14
Thermal energy			
Emissivity	.89	.89	.89
Winter U-Factor (BTU hr/ft² °F)	1.06	1.05	.48
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	34	34	30
Fade reduction %	60	59	57
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

NEUTRAL

Solar Gard® Solar Control Window Films

Stainless Steel 35

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	37	37	33
Reflectance exterior %	19	18	23
Reflectance interior %	16	16	17
Glare reduction %	59	59	58
Solar energy			
Total solar energy rejected %	50	51	45
Solar heat gain coefficient	.50	.49	.55
Energy distribution			
Transmittance %	34	31	25
Absorptance %	51	55	59
Reflectance %	15	14	16
Thermal energy			
Emissivity	.92	.92	.92
Winter U-Factor (BTU hr/ft^2 ºF)	1.08	1.07	.48
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	25	25	22
Fade reduction %	71	70	69
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

Stainless Steel 20

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	24	23	21
Reflectance exterior %	28	27	31
Reflectance interior %	25	25	26
Glare reduction %	74	74	73
Solar energy			
Total solar energy rejected %	61	61	52
Solar heat gain coefficient	.39	.39	.48
Energy distribution			
Transmittance %	22	20	16
Absorptance %	55	59	63
Reflectance %	23	21	21
Thermal energy			
Emissivity	.84	.84	.84
Winter U-Factor (BTU hr/ft^2 ºF)	1.04	1.02	.47
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	16	16	15
Fade reduction %	81	80	79
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

Silver 50

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	53	52	47
Reflectance exterior %	23	23	27
Reflectance interior %	22	22	24
Glare reduction %	41	41	41
Solar energy			
Total solar energy rejected %	50	51	47
Solar heat gain coefficient	.50	.49	.53
Energy distribution			
Transmittance %	39	37	30
Absorptance %	38	42	50
Reflectance %	23	21	20
Thermal energy			
Emissivity	.77	.77	.77
Winter U-Factor (BTU hr/ft² ºF)	1.00	.99	.46
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	40	40	36
Fade reduction %	53	51	49
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

Silver 35

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	33	33	30
Reflectance exterior %	40	39	40
Reflectance interior %	38	38	39
Glare reduction %	63	63	62
Solar energy			
Total solar energy rejected %	65	65	57
Solar heat gain coefficient	.35	.35	.43
Energy distribution			
Transmittance %	23	22	18
Absorptance %	39	45	54
Reflectance %	38	33	28
Thermal energy			
Emissivity	.79	.79	.79
Winter U-Factor (BTU hr/ft^2 ºF)	1.01	1.00	.47
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	26	26	24
Fade reduction %	69	68	66
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

Silver 20

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	16	16	15
Reflectance exterior %	59	57	56
Reflectance interior %	58	58	59
Glare reduction %	82	82	81
Solar energy			
Total solar energy rejected %	78	77	67
Solar heat gain coefficient	.22	.23	.33
Energy distribution			
Transmittance %	12	11	9
Absorptance %	36	43	54
Reflectance %	52	46	37
Thermal energy			
Emissivity	.70	.70	.70
Winter U-Factor (BTU hr/ft^2 ºF)	.96	.95	.45
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	14	14	13
Fade reduction %	84	83	81
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

Quantum/Silver/Quantum 20

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	24	23	21
Reflectance exterior %	10	10	16
Reflectance interior %	13	13	13
Glare reduction %	74	74	74
Solar energy			
Total solar energy rejected %	57	57	46
Solar heat gain coefficient	.43	.43	.54
Energy distribution			
Transmittance %	21	20	15
Absorptance %	69	71	72
Reflectance %	10	9	13
Thermal energy			
Emissivity	.91	.91	.91
Winter U-Factor (BTU hr/ft^2 °F)	1.08	1.06	.48
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	17	16	15
Fade reduction %	80	80	79
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

Quantum/Silver/Quantum 10

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	10	10	9
Reflectance exterior %	22	22	26
Reflectance interior %	25	25	25
Glare reduction %	89	89	89
Solar energy			
Total solar energy rejected %	69	69	54
Solar heat gain coefficient	.31	.31	.46
Energy distribution			
Transmittance %	7	7	6
Absorptance %	72	74	75
Reflectance %	21	19	19
Thermal energy			
Emissivity	.91	.91	.91
Winter U-Factor (BTU hr/ft^2 °F)	1.07	1.06	.48
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	8	8	7
Fade reduction %	91	90	90
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

Grey/Silver/Grey 10

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	5	5	4
Reflectance exterior %	10	10	16
Reflectance interior %	10	10	10
Glare reduction %	94	94	94
Solar energy			
Total solar energy rejected %	70	69	55
Solar heat gain coefficient	.30	.31	.45
Energy distribution			
Transmittance %	11	10	8
Absorptance %	65	70	73
Reflectance %	24	20	19
Thermal energy			
Emissivity	.75	.75	.75
Winter U-Factor (BTU hr/ft^2 ºF)	.99	.98	.46
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	4	4	4
Fade reduction %	95	95	94
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

Solar Bronze 35

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	31	31	28
Reflectance exterior %	30	30	32
Reflectance interior %	30	30	31
Glare reduction %	65	65	64
Solar energy			
Total solar energy rejected %	71	70	61
Solar heat gain coefficient	.29	.30	.39
Energy distribution			
Transmittance %	18	17	14
Absorptance %	37	45	56
Reflectance %	45	38	30
Thermal energy			
Emissivity	.72	.72	.72
Winter U-Factor (BTU hr/ft^2 ºF)	.97	.96	.46
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	18	18	16
Fade reduction %	79	78	77
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

Solar Bronze 20

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	23	23	21
Reflectance exterior %	37	36	37
Reflectance interior %	37	37	37
Glare reduction %	74	74	73
Solar energy			
Total solar energy rejected %	77	75	65
Solar heat gain coefficient	.23	.25	.35
Energy distribution			
Transmittance %	13	12	10
Absorptance %	38	46	57
Reflectance %	49	42	33
Thermal energy			
Emissivity	.66	.66	.66
Winter U-Factor (BTU hr/ft^2 ºF)	.94	.93	.45
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	13	13	12
Fade reduction %	85	84	83
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

Sentinel Plus DX 15

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	14	14	13
Reflectance exterior %	42	42	42
Reflectance interior %	17	17	22
Glare reduction %	84	84	84
Solar energy			
Total solar energy rejected %	74	75	82
Solar heat gain coefficient	.26	.25	.18
Energy distribution			
Transmittance %	13	13	10
Absorptance %	39	39	42
Reflectance %	48	48	48
Thermal energy			
Emissivity	.72	.72	.72
Winter U-Factor (BTU hr/ft² °F)	1.04	1.02	.47
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	11	11	10
Fade reduction %	87	87	86
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

OUTSIDE WEATHERABLE

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

Sentinel Plus DX 5

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	5	5	4
Reflectance exterior %	60	60	60
Reflectance interior %	15	15	20
Glare reduction %	95	95	95
Solar energy			
Total solar energy rejected %	85	86	91
Solar heat gain coefficient	.15	.14	.09
Energy distribution			
Transmittance %	5	5	4
Absorptance %	31	31	32
Reflectance %	64	64	64
Thermal energy			
Emissivity	.71	.71	.71
Winter U-Factor (BTU hr/ft^2 ºF)	1.03	1.02	.47
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	4	4	4
Fade reduction %	95	95	94
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

Sentinel Plus Stainless Steel 40

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	39	38	34
Reflectance exterior %	18	18	19
Reflectance interior %	16	15	21
Glare reduction %	57	57	57
Solar energy			
Total solar energy rejected %	49	51	62
Solar heat gain coefficient	.51	.49	.38
Energy distribution			
Transmittance %	37	34	27
Absorptance %	45	49	55
Reflectance %	18	17	18
Thermal energy			
Emissivity	.87	.87	.87
Winter U-Factor (BTU hr/ft^2 °F)	1.04	1.02	.47
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	26	26	23
Fade reduction %	69	68	67
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

Sentinel Plus Stainless Steel 25

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	24	23	21
Reflectance exterior %	28	28	29
Reflectance interior %	26	25	29
Glare reduction %	74	74	73
Solar energy			
Total solar energy rejected %	62	63	73
Solar heat gain coefficient	.38	.37	.27
Energy distribution			
Transmittance %	23	21	17
Absorptance %	50	52	56
Reflectance %	27	27	27
Thermal energy			
Emissivity	.86	.86	.86
Winter U-Factor (BTU hr/ft^2 ºF)	1.04	1.02	.47
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	16	16	15
Fade reduction %	81	80	79
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

Sentinel Plus Stainless Steel 15

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	13	13	12
Reflectance exterior %	40	40	40
Reflectance interior %	36	35	35
Glare reduction %	85	85	86
Solar energy			
Total solar energy rejected %	72	72	82
Solar heat gain coefficient	.28	.28	.18
Energy distribution			
Transmittance %	13	12	8
Absorptance %	49	50	54
Reflectance %	38	38	38
Thermal energy			
Emissivity	.83	.83	.83
Winter U-Factor (BTU hr/ft^2 ºF)	1.04	1.02	.46
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	9	9	8
Fade reduction %	89	89	89
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

Sentinel Plus SX 80

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	78	77	69
Reflectance exterior %	8	8	13
Reflectance interior %	8	8	15
Glare reduction %	13	13	13
Solar energy			
Total solar energy rejected %	42	43	55
Solar heat gain coefficient	.58	.57	.45
Energy distribution			
Transmittance %	42	40	33
Absorptance %	52	54	59
Reflectance %	6	6	8
Thermal energy			
Emissivity	.84	.84	.84
Winter U-Factor (BTU hr/ft^2 ºF)	1.04	1.02	.47
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	55	54	48
Fade reduction %	35	34	31
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

Sentinel Plus SX 50

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	48	47	43
Reflectance exterior %	27	27	29
Reflectance interior %	25	24	28
Glare reduction %	47	47	46
Solar energy			
Total solar energy rejected %	55	56	65
Solar heat gain coefficient	.45	.44	.35
Energy distribution			
Transmittance %	35	33	27
Absorptance %	32	35	40
Reflectance %	33	32	33
Thermal energy			
Emissivity	.76	.76	.76
Winter U-Factor (BTU hr/ft^2 ºF)	1.04	1.02	.47
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	36	36	32
Fade reduction %	58	56	54
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

Sentinel Plus Silver 35

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	34	33	31
Reflectance exterior %	41	41	42
Reflectance interior %	37	36	38
Glare reduction %	62	62	61
Solar energy			
Total solar energy rejected %	66	67	74
Solar heat gain coefficient	.34	.33	.26
Energy distribution			
Transmittance %	25	23	19
Absorptance %	29	31	35
Reflectance %	46	46	46
Thermal energy			
Emissivity	.78	.78	.78
Winter U-Factor (BTU hr/ft^2 ºF)	1.04	1.02	.47
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	27	26	24
Fade reduction %	68	68	66
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

Sentinel Plus Silver 20

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	16	16	15
Reflectance exterior %	61	61	62
Reflectance interior %	58	56	55
Glare reduction %	82	82	82
Solar energy			
Total solar energy rejected %	81	82	86
Solar heat gain coefficient	.19	.18	.14
Energy distribution			
Transmittance %	11	10	9
Absorptance %	25	26	27
Reflectance %	64	64	64
Thermal energy			
Emissivity	.76	.76	.76
Winter U-Factor (BTU hr/ft^2 ºF)	1.04	1.02	.47
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	13	13	12
Fade reduction %	85	84	83
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	2.0 mil (50 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

Sentinel Plus 4 Mil Clear

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	89	88	78
Reflectance exterior %	10	9	16
Reflectance interior %	10	9	16
Glare reduction %	1	1	1
Solar energy			
Total solar energy rejected %	18	21	33
Solar heat gain coefficient	.82	.79	.67
Energy distribution			
Transmittance %	78	73	58
Absorptance %	14	19	30
Reflectance %	8	8	12
Thermal energy			
Emissivity	.90	.90	.90
Winter U-Factor (BTU hr/ft² °F)	1.04	1.02	.47
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	60	60	53
Fade reduction %	29	27	24
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	4.0 mil (100 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

Graffitigard™ 7 Mil

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	88	87	78
Reflectance exterior %	10	10	16
Reflectance interior %	10	10	16
Glare reduction %	2	2	2
Solar energy			
Total solar energy rejected %	18	21	33
Solar heat gain coefficient	.82	.79	.67
Energy distribution			
Transmittance %	79	73	58
Absorptance %	12	18	29
Reflectance %	9	9	13
Thermal energy			
Emissivity	.95	.95	.95
Winter U-Factor (BTU hr/ft² °F)	1.04	1.02	.47
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	64	63	56
Fade reduction %	25	23	20
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	7.0 mil (175 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

Graffitigard™ 6 Mil

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	88	87	77
Reflectance exterior %	10	10	17
Reflectance interior %	10	10	17
Glare reduction %	2	2	2
Solar energy			
Total solar energy rejected %	18	22	33
Solar heat gain coefficient	.82	.78	.67
Energy distribution			
Transmittance %	79	73	58
Absorptance %	12	18	29
Reflectance %	9	9	13
Thermal energy			
Emissivity	.95	.95	.95
Winter U-Factor (BTU hr/ft^2 ºF)	1.04	1.02	.47
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	63	62	55
Fade reduction %	26	24	21
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	6.0 mil (150 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

Solar Gard® Solar Control Window Films

Graffitigard™ 4 Mil

Performance Results	1/8" (3mm)	1/4" (6mm)	1/4"+ 1/4" (6mm+6mm)
Visible light			
Transmittance %	88	86	77
Reflectance exterior %	10	10	16
Reflectance interior %	10	10	16
Glare reduction %	2	2	2
Solar energy			
Total solar energy rejected %	18	22	33
Solar heat gain coefficient	.82	.78	.67
Energy distribution			
Transmittance %	78	72	57
Absorptance %	13	20	30
Reflectance %	9	8	13
Thermal energy			
Emissivity	.95	.95	.95
Winter U-Factor (BTU hr/ft² °F)	1.04	1.02	.47
Fade control			
UV Tdw-ISO @ 300 to 700 nm %	64	63	56
Fade reduction %	25	23	20
Ultraviolet light blocked @ 300 to 380 nm %	>99	>99	>99

Physical Properties Nominal

Gauge	4.0 mil (100 micron)

For information on the calculation method of listed results, as well as a glossary of terms, please refer to the final pages of this booklet.

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 (BTU hr/ft2 °F) The amount of heat energy which transfers through an area of 1ft2 with a temperature difference of 1 F°. The lower the U-factor, the better insulating 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.

Solar Gard® Solar Control Window Films

Performance Notes

1. Performance results are calculated using NFRC methodology and LBNL Window software, and are subject to variations within industry standards and only intended for estimating purposes. This data is provided for informational purposes only and are subject to normal manufacturing variances.

2. Performance results for glare and fade reduction are calculated by comparing filmed glass to that of untreated glazing.


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