

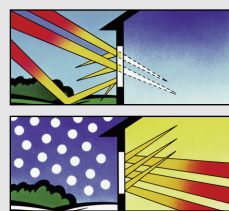
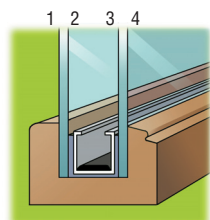


PPG Residential 3/4" (19mm) Insulating Glass Unit Performance Using 1/8" (3mm) Glass¹

3/4" (19mm) Insulating Glass Unit Performance Using 1/8" (3mm) Glass - Based on LBNL Window 5.2 Simulations ¹												
Glass Type	Transmittance (%) ²			Reflectance (%) ²		With Air Fill		With 90% Argon - 10% Air Fill		Shading Coefficient ^{2,4}	Solar Heat Gain Coefficient ⁵	Light To Solar Gain (LSG) ⁶
	Ultraviolet	Visible	Total Solar	Visible	Total Solar	U-Value (Imperial) ³		U-Value (Imperial) ³				
						Winter	Summer	Winter	Summer			
Uncoated - with 1/8" (3mm) Glass and 1/2" (12mm) Gas Cavity Outdoor Lite as Shown, Indoor Lite Clear												
Clear	58	81	69	16	13	0.48	0.50	0.46	0.48	0.87	0.75	1.08
ATLANTICA™	24	69	42	13	8	0.48	0.50	0.46	0.48	0.59	0.51	1.36
AZURIA™	45	70	39	12	8	0.48	0.50	0.46	0.48	0.56	0.48	1.45
SOLARBRONZE®	33	60	54	11	10	0.48	0.50	0.46	0.48	0.71	0.62	0.97
SOLARGRAY®	32	55	49	10	9	0.48	0.50	0.46	0.48	0.66	0.58	0.94
STARPHIRE®	80	84	82	15	14	0.48	0.50	0.46	0.48	0.96	0.83	1.01
Coated - with 1/8" (3mm) Glass and 1/2" (12mm) Gas Cavity Outdoor Lite / Indoor Lite as Shown												
SUNGATE® 500 Coated Glass												
SUNGATE 500 (2) Clear / Clear	49	76	59	17	15	0.35	0.35	0.31	0.31	0.76	0.66	1.15
Clear / SUNGATE 500 (3) Clear	49	76	59	18	17	0.35	0.35	0.31	0.31	0.81	0.70	1.08
SUNCLEAN™ / SUNGATE 500 (3) Clear	31	68	55	26	23	0.35	0.35	0.31	0.31	0.75	0.65	1.04
AZURIA / SUNGATE 500 (3) Clear	37	65	33	14	9	0.35	0.35	0.31	0.31	0.50	0.43	1.50
SOLARBRONZE / SUNGATE 500 (3) Clear	28	56	45	12	12	0.35	0.35	0.31	0.31	0.65	0.57	0.98
SOLARGRAY / SUNGATE 500 (3) Clear	27	51	41	11	11	0.35	0.35	0.31	0.31	0.60	0.52	0.97
SUNGATE® 600 Coated Glass												
Clear / SUNGATE 600 (3) Clear	43	72	54	18	16	0.33	0.33	0.29	0.28	0.80	0.69	1.04
SOLARBAN 60 (2) Clear / SUNGATE 600 (4) Clear	16	64	31	13	36	0.23	0.21	0.20	0.17	0.42	0.36	1.76
SOLARBAN 70XL (2) Clear / SUNGATE 600 (4) Clear	4	57	22	13	44	0.23	0.20	0.19	0.17	0.30	0.26	2.20
SUNGATE 600 (2) Clear / Clear	43	72	54	16	14	0.33	0.33	0.29	0.28	0.69	0.60	1.20
SUNGATE® 400 Coated Glass												
SUNGATE 400 (2) Clear / Clear	32	78	57	14	18	0.32	0.31	0.28	0.26	0.73	0.63	1.24
Clear / SUNGATE 400 (3) Clear	32	78	57	14	19	0.32	0.31	0.28	0.26	0.78	0.67	1.16
SOLARBAN® 65 Coated Glass												
SOLARBAN 65 (2) Clear / Clear	18	70	34	14	37	0.29	0.27	0.25	0.22	0.43	0.37	1.88
SOLARBAN® 60 Coated Glass												
SOLARBAN 60 (2) Clear / Clear	21	72	35	11	35	0.29	0.27	0.25	0.22	0.45	0.39	1.85
SOLARBAN 60 (2) SUNCLEAN (1) / Clear	12	62	31	23	43	0.29	0.27	0.25	0.22	0.40	0.34	1.83
SOLARBAN 60 (2) STARPHIRE / STARPHIRE	25	75	39	11	44	0.29	0.27	0.25	0.22	0.46	0.40	1.87
ATLANTICA / SOLARBAN 60 (3) Clear	10	62	26	10	12	0.29	0.27	0.25	0.22	0.42	0.36	1.71
AZURIA / SOLARBAN 60 (3) Clear	17	62	26	10	10	0.29	0.27	0.25	0.22	0.42	0.36	1.72
SOLARBAN 60 (2) Gray / Clear	12	48	24	8	20	0.29	0.27	0.25	0.22	0.34	0.30	1.61
SOLARBRONZE / SOLARBAN 60 (3) Clear	13	54	27	9	25	0.29	0.27	0.25	0.22	0.43	0.37	1.45
SOLARBAN® 70XL Coated Glass												
SOLARBAN 70XL (2) Clear / Clear	6	64	25	12	43	0.29	0.27	0.24	0.21	0.32	0.28	2.29
SUNCLEAN / SOLARBAN 70XL (3) Clear	4	57	22	23	51	0.29	0.27	0.24	0.21	0.38	0.33	1.72
ATLANTICA / SOLARBAN 70XL (3) Clear	3	55	20	11	14	0.29	0.27	0.24	0.21	0.37	0.32	1.71
AZURIA / SOLARBAN 70XL (3) Clear	5	55	20	11	12	0.29	0.27	0.24	0.21	0.37	0.32	1.72
SOLARGRAY / SOLARBAN 70XL (3) Clear	3	43	17	9	25	0.29	0.27	0.24	0.21	0.33	0.28	1.53
SOLARBRONZE / SOLARBAN 70XL (3) Clear	4	48	18	10	30	0.29	0.27	0.24	0.21	0.35	0.30	1.59

* Performance data is based on representative samples of factory production. Actual values may vary slightly due to variations in the production process.

Footnotes on reverse side.



PPG Low-E glass allows natural light to enter freely.
In winter, indoor heat energy is reflected back into the home.
In summer, outdoor heat energy is reflected back outside.

SUNGATE® 400
Low-E Glass

SOLARBAN®
SOLAR CONTROL LOW-E GLASS 70XL

SUNGATE® 500
Low-E Glass

SOLARBAN®60
SOLAR CONTROL LOW-E GLASS

SUNGATE® 600
Low-E Glass

SOLARBAN®65
SOLAR CONTROL LOW-E GLASS

intercept.
SPACER SYSTEM

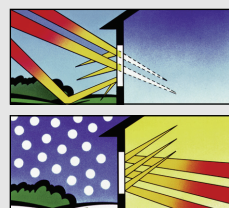
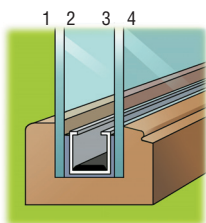
SUNCLEAN™
Self-Cleaning Glass by PPG



PPG Residential 3/4" (19mm) Insulating Glass Unit Performance Using 3/32" (2.5mm) Glass^{1*}

3/4" (19mm) Insulating Glass Unit Performance Using 3/32" (2.5mm) Glass - Based on LBNL Window 5.2 Simulations ¹												
Glass Type	Transmittance (%) ²			Reflectance (%) ²		With Air Fill		With 90% Argon - 10% Air Fill		Shading Coefficient ^{3,4}	Solar Heat Gain Coefficient ⁵	Light To Solar Gain (LSG) ⁶
	Ultraviolet	Visible	Total Solar	Visible	Total Solar	U-Value (Imperial) ³		U-Value (Imperial) ³				
						Winter	Summer	Winter	Summer			
Uncoated - with 3/32" (2.5mm) Glass and 9/16" (14mm) Gas Cavity Outdoor Lite as Shown, Indoor Lite Clear												
Clear	64	82	74	16	14	0.48	0.50	0.46	0.48	0.90	0.78	1.06
ATLANTICA™	32	74	50	14	9	0.48	0.50	0.46	0.48	0.67	0.58	1.27
AZURIA™	51	74	47	13	9	0.48	0.50	0.46	0.48	0.63	0.55	1.34
SOLARBRONZE®	41	67	62	12	11	0.48	0.50	0.46	0.48	0.78	0.68	0.99
Coated - with 3/32" (2.5mm) Glass and 9/16" (14mm) Gas Cavity Outdoor Lite / Indoor Lite as Shown												
SUNGATE® 500 Coated Glass												
SUNGATE 500 (2) Clear / Clear	53	76	63	17	16	0.36	0.34	0.32	0.30	0.78	0.68	1.12
Clear / SUNGATE 500 (3) Clear	53	76	63	18	17	0.36	0.34	0.32	0.30	0.84	0.73	1.05
SUNCLEAN™ / SUNGATE 500 (3) Clear	33	68	58	27	23	0.36	0.34	0.32	0.30	0.78	0.68	1.00
AZURIA / SUNGATE 500 (3) Clear	43	69	40	15	10	0.36	0.34	0.32	0.30	0.57	0.49	1.40
SOLARBRONZE / SUNGATE 500 (3) Clear	34	62	52	13	14	0.36	0.34	0.32	0.30	0.72	0.62	1.00
SUNGATE® 400 Coated Glass												
SUNGATE 400 (2) Clear / Clear	34	79	61	14	19	0.33	0.30	0.28	0.25	0.75	0.65	1.22
Clear / SUNGATE 400 (3) Clear	34	79	61	14	21	0.33	0.30	0.28	0.25	0.80	0.70	1.14
SOLARBAN® 65 Coated Glass												
SOLARBAN 65 (2) Clear / Clear	20	71	35	14	40	0.30	0.25	0.25	0.20	0.43	0.38	1.89
SOLARBAN® 60 Coated Glass												
SOLARBAN 60 (2) Clear / Clear	22	73	36	12	39	0.30	0.26	0.25	0.20	0.45	0.39	1.87
SOLARBAN 60 (2) SUNCLEAN (1) / Clear	12	63	32	23	45	0.30	0.26	0.25	0.20	0.39	0.34	1.86
ATLANTICA / SOLARBAN 60 (3) Clear	12	65	29	11	16	0.30	0.26	0.25	0.20	0.45	0.39	1.67
AZURIA / SOLARBAN 60 (3) Clear	19	66	29	11	13	0.30	0.26	0.25	0.20	0.45	0.39	1.68
SOLARBAN 60 (2) Gray / Clear	15	55	28	9	26	0.30	0.26	0.25	0.20	0.37	0.32	1.73
SOLARBRONZE / SOLARBAN 60 (3) Clear	15	60	30	10	31	0.30	0.26	0.25	0.20	0.46	0.40	1.49
SOLARBAN® 70XL Coated Glass												
SOLARBAN 70XL (2) Clear / Clear	6	65	25	12	47	0.29	0.25	0.25	0.19	0.32	0.27	2.40
SUNCLEAN / SOLARBAN 70XL (3) Clear	5	58	22	23	55	0.29	0.25	0.25	0.19	0.39	0.34	1.69
ATLANTICA / SOLARBAN 70XL (3) Clear	3	58	21	12	20	0.29	0.25	0.25	0.19	0.39	0.34	1.71
AZURIA / SOLARBAN 70XL (3) Clear	5	58	21	12	16	0.29	0.25	0.25	0.19	0.39	0.34	1.71
SOLARBRONZE / SOLARBAN 70XL (3) Clear	4	53	21	11	37	0.29	0.25	0.25	0.19	0.37	0.32	1.65

- Figures may vary due to manufacturing tolerances. All tabulated data is based on NFRC methodology using the LBNL Window 5.2 software. Variations from previously published data are due to minor changes in the LBNL Window 5.2 software versus Version 4.1.
- Transmittance and reflectance values based on spectrophotometric measurements and energy distribution of solar radiation.
- U-value** is the overall coefficient of heat transmittance or heat flow measured in BTU/hr. • ft² • °F (watts/m²•°C). Lower U-values indicate better insulating performance.
- Shading coefficient** is the ratio of the total amount of solar energy that passes through a glass relative to 1/8-in. (3.0mm) thick clear glass under the same design conditions. It includes both solar energy transmitted directly plus any absorbed solar energy re-radiated and convected. Lower shading coefficient values indicate better performance in reducing solar heat gain. Note: Performance values were calculated using the LBNL Window 5.2 program using NFRC 100-2001 standard winter and summer design conditions.
- Solar heat gain coefficient (SHGC)** represents the solar heat gain through the glass relative to the incident solar radiation. It is equal to 86% of the shading coefficient.
- Light to Solar Gain ratio (LSG)** is the ratio of visible light transmittance to solar heat gain coefficient.



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SUNGATE® 400
Low-E Glass

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