



Table of Performance Values<sup>1</sup>

Glass Thickness		Transmittance <sup>2</sup>			Reflectance <sup>2</sup>		U-Value* (Imperial)		K-Value* (Metric)		Shading Coefficient <sup>5</sup>	Solar Heat Gain Coefficient <sup>6</sup>	Light to Solar Gain (LSG) <sup>7</sup>
Inches	mm	Ultra-violet %	Visible %	Total Solar Energy %	Visible Light %	Total Solar Energy %	Winter Night-time	Summer Day-time	Winter Night-time	Summer Day-time			
<b>Uncoated</b>													
<b>STARPHIRE® Glass</b>													
1/8	3	67	91	90	8	8	1.04	0.94	5.91	5.34	1.04	0.91	1.00
3/16	5	62	91	90	8	8	1.03	0.93	5.85	5.28	1.04	0.89	1.02
1/4	6	59	91	89	8	8	1.03	0.93	5.85	5.28	1.03	0.89	1.03
5/16	8	55	91	88	8	8	1.01	0.91	5.74	5.17	1.03	0.89	1.03
3/8	10	53	91	87	8	8	1.00	0.91	5.68	5.17	1.02	0.88	1.04
1/2	12	49	91	86	8	8	0.98	0.89	5.57	5.06	1.01	0.87	1.05
5/8	16	46	90	84	8	8	0.97	0.87	5.48	4.97	1.00	0.87	1.03
3/4	19	44	90	83	8	8	0.95	0.86	5.39	4.89	0.99	0.86	1.05
<b>CLEAR Glass</b>													
3/32	2.5	77	90	85	9	9	1.04	0.94	5.91	5.34	1.00	0.87	1.03
1/8	3	73	90	83	9	8	1.04	0.94	5.91	5.34	0.98	0.85	1.06
5/32	4	71	90	81	9	8	1.04	0.93	5.91	5.28	0.97	0.84	1.07
3/16	5	69	89	79	9	7	1.03	0.93	5.85	5.28	0.96	0.83	1.08
1/4	6	66	89	77	9	7	1.03	0.93	5.85	5.28	0.94	0.81	1.10
5/16	8	61	88	72	8	7	1.01	0.91	5.74	5.17	0.90	0.77	1.14
3/8	10	58	87	69	8	7	1.00	0.91	5.68	5.17	0.88	0.76	1.15
1/2	12	53	85	64	8	6	0.98	0.89	5.57	5.06	0.84	0.72	1.18
5/8	16	48	84	59	8	6	0.97	0.87	5.48	4.97	0.80	0.69	1.22
3/4	19	45	82	55	8	6	0.95	0.86	5.39	4.89	0.77	0.67	1.22
<b>SOLEXIA™ Glass</b>													
1/8	3	43	83	60	8	6	1.04	0.94	5.91	5.34	0.81	0.70	1.19
5/32	4	39	81	56	8	6	1.04	0.93	5.91	5.28	0.78	0.67	1.21
3/16	5	35	79	52	8	6	1.03	0.93	5.85	5.28	0.75	0.65	1.22
1/4	6	31	77	47	8	6	1.02	0.93	5.79	5.28	0.71	0.61	1.26
<b>ATLANTICA™ Glass</b>													
1/8	3	28	77	48	8	6	1.04	0.94	5.91	5.34	0.72	0.62	1.24
5/32	4	24	74	44	7	5	1.04	0.93	5.91	5.28	0.68	0.56	1.25
3/16	5	20	71	39	7	5	1.03	0.93	5.85	5.28	0.65	0.56	1.27
1/4	6	16	67	34	7	5	1.02	0.93	5.79	5.28	0.61	0.52	1.28
<b>CARIBIA® Glass</b>													
1/8	3	36	77	46	7	6	1.04	0.94	5.91	5.34	0.70	0.60	1.28
3/16	5	28	71	37	7	5	1.03	0.93	5.85	5.28	0.63	0.54	1.31
1/4	6	24	68	32	7	5	1.02	0.93	5.79	5.28	0.60	0.52	1.32
<b>AZURIA™ Glass</b>													
1/8	3	53	77	45	7	6	1.04	0.94	5.91	5.34	0.69	0.59	1.30
5/32	4	50	75	40	7	5	1.04	0.93	5.91	5.28	0.66	0.56	1.34
3/16	5	46	72	36	7	5	1.03	0.93	5.85	5.28	0.62	0.53	1.35
1/4	6	42	68	32	7	5	1.02	0.93	5.79	5.28	0.59	0.51	1.34
5/16	8	35	61	26	6	5	1.01	0.91	5.74	5.17	0.55	0.47	1.29
3/8	10	31	57	23	6	5	1.00	0.91	5.68	5.17	0.53	0.46	1.25
<b>SOLARBRONZE® Glass</b>													
1/8	3	39	67	64	7	6	1.04	0.94	5.91	5.34	0.88	0.76	0.88
5/32	4	35	63	60	7	6	1.04	0.93	5.91	5.28	0.81	0.70	0.90
3/16	5	30	58	55	6	6	1.03	0.93	5.85	5.28	0.77	0.66	0.88
1/4	6	26	53	50	6	6	1.02	0.93	5.79	5.28	0.73	0.63	0.84
5/16	8	18	43	39	6	5	1.01	0.91	5.74	5.17	0.65	0.56	0.77
3/8	10	14	37	34	5	5	1.00	0.91	5.68	5.17	0.61	0.52	0.71
1/2	12	9	27	24	5	5	0.98	0.89	5.57	5.06	0.54	0.46	0.58
<b>SOLARGRAY® Glass</b>													
1/8	3	37	60	58	6	6	1.04	0.94	5.91	5.34	0.79	0.68	0.88
5/32	4	33	56	53	6	6	1.04	0.93	5.91	5.28	0.75	0.65	0.87
3/16	5	29	50	48	6	5	1.03	0.93	5.85	5.28	0.71	0.61	0.82
1/4	6	24	44	42	6	5	1.02	0.93	5.79	5.28	0.67	0.58	0.76
5/16	8	17	33	31	5	5	1.01	0.91	5.74	5.17	0.59	0.51	0.65
3/8	10	13	28	26	5	5	1.00	0.91	5.68	5.17	0.55	0.47	0.59
1/2	12	8	18	17	5	5	0.98	0.89	5.57	5.06	0.49	0.42	0.43
<b>OPTIGRAY® 23 Glass</b>													
1/8	3	18	41	36	6	5	1.04	0.94	5.91	5.34	0.67	0.58	0.71
1/4	6	8	23	19	5	5	1.02	0.93	5.79	5.28	0.50	0.43	0.53
<b>GRAYLITE® Glass</b>													
1/8	3	17	30	43	5	5	1.04	0.94	5.91	5.34	0.68	0.58	0.52
1/4	6	7	14	26	5	5	1.02	0.93	5.79	5.28	0.55	0.47	0.30



# PPG Monolithic Glass Comparisons\*

Table of Performance Values <sup>1</sup>													
Glass Thickness		Transmittance <sup>2</sup>			Reflectance <sup>2</sup>		U-Value <sup>4</sup> (Imperial)		K-Value <sup>4</sup> (Metric)		Shading Coefficient <sup>5</sup>	Solar Heat Gain Coefficient <sup>6</sup>	Light to Solar Gain (LSG) <sup>7</sup>
Inches	mm	Ultra-violet %	Visible %	Total Solar Energy %	Visible Light %	Total Solar Energy %	Winter Night-time	Summer Day-time	Winter Night-time	Summer Day-time			
<b>Coated</b>													
<b>VISTACOO™ (2) AZURIA™ Glass</b>													
1/4	6	29	47	22	21	11	0.47	0.50	2.67	2.84	0.39	0.34	1.38
<b>SOLARCOOL® (1) SOLEXIA™ Glass</b>													
1/4	6	9	30	23	37	30	1.03	0.93	5.85	5.28	0.44	0.38	0.79
<b>SOLARCOOL® (2) SOLEXIA™ Glass</b>													
1/4	6	9	30	23	23	37	1.03	0.93	5.85	5.28	0.50	0.43	0.70
<b>SOLARCOOL® (1) CARIBIA® Glass</b>													
1/4	6	7	26	14	36	30	1.03	0.93	5.85	5.28	0.36	0.31	0.84
<b>SOLARCOOL® (2) CARIBIA® Glass</b>													
1/4	6	7	26	14	19	9	1.03	0.93	5.85	5.28	0.44	0.38	0.69
<b>SOLARCOOL® (1) AZURIA™ Glass</b>													
3/16	5	13	27	16	36	30	1.03	0.93	5.85	5.28	0.37	0.32	0.85
1/4	6	12	26	14	36	30	1.03	0.93	5.85	5.28	0.36	0.31	0.84
<b>SOLARCOOL® (2) AZURIA™ Glass</b>													
3/16	5	13	27	16	36	10	1.03	0.94	5.85	5.34	0.45	0.39	0.70
1/4	6	12	26	14	19	10	1.03	0.93	5.85	5.28	0.44	0.38	0.69
<b>SOLARCOOL® (1) Bronze Glass</b>													
5/32	4	10	24	33	36	30	1.04	0.94	5.91	5.34	0.51	0.44	0.55
1/4	6	7	21	27	36	30	1.03	0.93	5.85	5.28	0.46	0.40	0.53
<b>SOLARCOOL® (2) Bronze Glass</b>													
5/32	4	10	24	33	17	14	1.04	0.94	5.91	5.34	0.57	0.49	0.49
1/4	6	7	21	27	13	11	1.03	0.93	5.85	5.28	0.53	0.46	0.46
<b>SOLARCOOL® (1) Gray Glass</b>													
1/4	6	7	17	23	36	30	1.03	0.93	5.85	5.28	0.43	0.37	0.46
<b>SOLARCOOL® (2) Gray Glass</b>													
1/4	6	7	17	23	11	9	1.03	0.93	5.85	5.28	0.51	0.44	0.39
<b>SOLARCOOL® (1) GRAYLITE® Glass</b>													
1/4	6	2	5	16	36	30	1.03	0.93	5.85	5.28	0.37	0.32	0.16
<b>SOLARCOOL® (2) GRAYLITE® Glass</b>													
1/4	6	2	5	16	5	6	1.03	0.93	5.85	5.28	0.46	0.40	0.13

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

1. Figures may vary due to manufacturing tolerances. All tabulated data is based on NFRC methodology using the LBL's Window 5.2 software.
2. Transmittance and reflectance values based on spectrophotometric measurements and energy distribution of solar radiation.
3. Solar infrared transmittance between 800 and 2150 nm (Parry Moon AM 2 irradiance).
4. **U-value (K-value)** is the overall coefficient of heat transmittance or heat flow measured in BTU/hr. • ft<sup>2</sup> • °F (watts/m<sup>2</sup>•°C). Lower U-values indicate better insulating performance. Winter nighttime U-values are calculated using an outdoor air temperature of 0°F (-17.8°C), indoor air temperature of 70°F (21°C), outdoor air velocity of 15 mph (6.7 m/s), indoor air velocity of 0 mph (0 m/s) and a solar intensity of 0 BTU/hour/square foot (0 w/m<sup>2</sup>). Summer daytime U-values are calculated using an outdoor air temperature of 89°F (32°C), indoor air temperature of 75°F (24°C), outdoor air velocity of 7.5 mph (3.4 m/s), indoor air velocity of 0 mph (0 m/s), and a solar intensity of 248 BTU/hour/square foot (783 w/m<sup>2</sup>).
5. **Shading Coefficient** is the ratio of the total amount of solar energy that passes through a glass relative to 1/8-in. (3.0 mm) thick clear glass under the same design conditions. It includes both solar energy transmitted directly plus any absorbed solar energy re-radiated and converted. Lower shading coefficient values indicate better performance in reducing summer heat gain. Shading coefficients at outdoor air temperature of 89°F (32°C), outdoor air velocity of 7.5 mph (3.4 m/s), indoor air temperature of 75°F (24°C), indoor air velocity of 0 mph (0 m/s) and solar intensity of 248 BTU/hour/square foot (783 w/m<sup>2</sup>).
6. **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.
7. **Light to Solar Gain (LSG) ratio** is the ratio of visible light transmittance to solar heat gain coefficient.



One-inch insulating glass data and comparisons can be found at [www.ppgideascape.com](http://www.ppgideascape.com) or by calling the PPG Solutions Hotline at 1-888-774-4332.

For data on: Solargreen® Glass — see Atlantica™ Glass  
 Solex® Glass — see Solexia™ Glass  
 Azurlite® Glass — see Azuria™ Glass

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