



Table of Performance Values¹

Glass Thickness		Transmittance ²			Reflectance ²		U-Value (Imperial) ⁴		K-Value (Metric) ⁴		Shading Coefficient ³	Solar Heat Gain Coefficient ⁵	Light to Solar Gain (LSG)
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			
Uncoated													
STARPHIRE® Glass													
1/8	3	88	91	90	8	8	1.04	0.94	5.91	5.34	1.04	0.91	1.00
3/16	5	86	91	90	8	8	1.03	0.93	5.85	5.28	1.04	0.89	1.02
1/4	6	85	91	89	8	8	1.03	0.93	5.85	5.28	1.03	0.89	1.03
5/16	8	84	91	88	8	8	1.01	0.91	5.74	5.17	1.03	0.89	1.03
3/8	10	83	91	87	8	8	1.00	0.91	5.68	5.17	1.02	0.88	1.04
1/2	12	80	91	86	8	8	0.98	0.89	5.57	5.06	1.01	0.87	1.05
CLEAR Glass													
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
SOLEXIA™ Glass													
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
ATLANTICA™ Glass													
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
CARIBIA® Glass													
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
AZURIA™ Glass													
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
SOLARBRONZE® Glass													
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
SOLARGRAY® Glass													
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
OPTIGRAY® 23 Glass													
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
GRAYLITE® Glass													
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*

Glass Thickness		Table of Performance Values ¹											
Inches	mm	Transmittance ²			Reflectance ²		U-Value (Imperial) ⁴		K-Value (Metric) ⁴		Shading Coefficient ⁵	Solar Heat Gain Coefficient ⁶	Light to Solar Gain (LSG) ⁷
		Ultra-violet %	Visible %	Total Solar Energy %	Visible Light %	Total Solar Energy %	Winter Night-time	Summer Day-time	Winter Night-time	Summer Day-time			
Uncoated													
SOLARCOOL® (1) SOLEXIA™ Glass													
1/4	6	9	30	23	37	30	1.03	0.93	5.85	5.28	0.44	0.38	0.79
SOLARCOOL® (2) SOLEXIA™ Glass													
1/4	6	9	30	23	23	37	1.03	0.93	5.85	5.28	0.50	0.43	0.70
SOLARCOOL® (1) CARIBIA® Glass													
1/4	6	7	26	14	36	30	1.03	0.93	5.85	5.28	0.36	0.31	0.84
SOLARCOOL® (2) CARIBIA® Glass													
1/4	6	7	26	14	19	9	1.03	0.93	5.85	5.28	0.44	0.38	0.69
SOLARCOOL® (1) AZURIA™ Glass													
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
SOLARCOOL® (2) AZURIA™ Glass													
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
SOLARCOOL® (1) Bronze Glass													
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
SOLARCOOL® (2) Bronze Glass													
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
SOLARCOOL® (1) Gray Glass													
1/4	6	7	17	23	36	30	1.03	0.93	5.85	5.28	0.43	0.37	0.46
SOLARCOOL® (2) Gray Glass													
1/4	6	7	17	23	11	9	1.03	0.93	5.85	5.28	0.51	0.44	0.39
SOLARCOOL® (1) GRAYLITE® Glass													
1/4	6	2	5	16	36	30	1.03	0.93	5.85	5.28	0.37	0.32	0.16
SOLARCOOL® (2) GRAYLITE® Glass													
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. • ft² • °F (watts/m²•°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/m²). 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/m²).
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/m²).
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.ppgglazing.com or by calling the PPG Solutions Hotline at 800-377-5267.

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

© 2005 PPG Industries, Inc. All rights reserved. Atlantica, Azuria, Azurlite, Caribia, Graylite, Oceans of Color, Optigray, IdeaScapes, Solarban, Solarbronze, Solarcool, Solargray, Solargreen, Solex, Solexia, Starphire, Sungate, PPG and the PPG logo are trademarks and EcoLogical Building Solutions is a service mark owned by PPG Industries, Inc.

Printed in U.S.A.
 7083 1/05 10M

