

Product Data Sheet

Vitro Monolithic Glass Comparisons

Table of Performance Values*1									
Glass Thickness		Visible Light Transmittance (VLT) ²	Visible Light Reflectance ²		(Btu/hr ² ft ² ° F) NFRC U-Value ³		Solar Heat Gain Coefficient (SHGC) ⁴	Light to Solar Gain (LSG) ⁵	
Inches	mm		Exterior %	Interior %	Winter Nighttime	Winter Argon			
Uncoated									
Clear Glass									
	1/8	3	90	9	9	1.04	na	0.86	1.05
	5/32	4	90	9	9	1.04	na	0.84	1.07
	3/16	5	89	9	9	1.03	na	0.83	1.07
	1/4	6	89	8	9	1.02	na	0.82	1.09
	5/16	8	87	8	9	1.01	na	0.79	1.10
	3/8	10	87	8	8	1.00	na	0.77	1.13
	1/2	12	85	8	8	0.98	na	0.73	1.16
	5/8	16	84	8	8	0.97	na	0.70	1.20
	3/4	19	83	8	8	0.95	na	0.67	1.24
Starphire® Glass									
	1/8	3	91	8	8	1.04	na	0.91	1.00
	5/32	4	91	8	8	1.04	na	0.91	1.00
	3/16	5	91	8	8	1.03	na	0.90	1.01
	1/4	6	91	8	8	1.02	na	0.90	1.01
	5/16	8	91	8	8	1.01	na	0.89	1.02
	3/8	10	91	8	8	1.00	na	0.89	1.02
	1/2	12	90	8	8	0.98	na	0.88	1.02
	5/8	16	90	8	8	0.97	na	0.87	1.03
	3/4	19	90	8	8	0.95	na	0.86	1.05
Solexia® Glass									
	1/8	3	83	8	8	1.04	na	0.70	1.19
	5/32	4	81	8	8	1.04	na	0.68	1.19
	3/16	5	79	8	8	1.03	na	0.65	1.22
	1/4	6	77	8	8	1.02	na	0.62	1.24
Atlantica® Glass									
	1/4	6	67	7	7	1.02	na	0.53	1.26
Azuria® Glass									
	5/32	4	75	7	7	1.04	na	0.57	1.32
	3/16	5	72	7	7	1.03	na	0.54	1.33
	1/4	6	68	7	7	1.02	na	0.52	1.31
	5/16	8	61	6	6	1.01	na	0.48	1.27
	3/8	10	57	6	6	1.00	na	0.46	1.24
Solarblue® Glass									
	1/4	6	56	6	6	1.02	na	0.61	0.92
Pacifica® Glass									
	1/4	6	42	5	5	1.02	na	0.49	0.86
Solarbronze® Glass									
	1/8	3	67	7	7	1.04	na	0.73	0.92
	5/32	4	63	7	7	1.04	na	0.70	0.90
	3/16	5	58	6	6	1.03	na	0.67	0.87
	1/4	6	53	6	6	1.02	na	0.63	0.84
	5/16	8	43	6	6	1.01	na	0.57	0.75
	3/8	10	37	5	6	1.00	na	0.53	0.70
	1/2	12	27	5	5	0.98	na	0.47	0.57
Optigray® Glass									
	1/4	6	63	6	6	1.02	na	0.64	0.98
Solargray® Glass									
	1/8	3	60	6	7	1.04	na	0.69	0.87
	5/32	4	56	6	7	1.04	na	0.66	0.85
	3/16	5	50	6	6	1.03	na	0.62	0.81
	1/4	6	44	6	6	1.02	na	0.58	0.76
	5/16	8	33	5	6	1.01	na	0.51	0.65
	3/8	10	28	5	5	1.00	na	0.48	0.58
	1/2	12	18	5	5	0.98	na	0.42	0.43

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Glass Thickness		Visible Light Transmittance (VLT) ²	Visible Light Reflectance ²		(Btu/hr ² ft ² ° F) NFRC U-Value ³		Solar Heat Gain Coefficient (SHGC) ⁴	Light to Solar Gain (LSG) ⁵	
Inches	mm		Exterior %	Interior %	Winter Nighttime	Winter Argon			
Uncoated									
Graylite® II Glass									
1/8	3	24	5	5	1.04	na	0.45	0.53	
5/32	4	18	4	5	1.04	na	0.41	0.44	
3/16	5	13	4	5	1.03	na	0.39	0.33	
1/4	6	9	4	5	1.02	na	0.36	0.25	
Coated									
Vistacool® (2) Azuria® Glass									
1/4	6	52	19	29	1.02	na	0.46	1.13	
Vistacool® (2) Pacifica® Glass									
1/4	6	32	10	28	1.02	na	0.44	0.73	
Solarcool® (2) Solexia® Glass									
1/4	6	30	23	37	1.03	na	0.43	0.70	
Solarcool® (1) Solexia® Glass									
1/4	6	30	37	23	1.03	na	0.37	0.81	
Solarcool® (2) Azuria® Glass									
3/16	5	27	20	36	1.04	na	0.39	0.69	
1/4	6	26	19	36	1.03	na	0.38	0.68	
Solarcool® (1) Azuria® Glass									
3/16	5	27	36	20	1.03	na	0.32	0.84	
1/4	6	26	36	19	1.03	na	0.31	0.84	
Solarcool® (2) Solarblue® Glass									
1/4	6	21	14	36	1.02	na	0.45	0.47	
Solarcool® (1) Solarblue® Glass									
1/4	6	21	36	14	1.02	na	0.38	0.55	
Solarcool® (2) Pacifica® Glass									
1/4	6	16	10	36	1.02	na	0.38	0.42	
Solarcool® (1) Pacifica® Glass									
1/4	6	16	36	10	1.02	na	0.31	0.52	
Solarcool® (2) Solarbronze® Glass									
1/4	6	21	13	36	1.03	na	0.47	0.45	
Solarcool® (1) Solarbronze® Glass									
1/4	6	21	36	13	1.03	na	0.40	0.53	
Solarcool® (2) Solargray® Glass									
1/4	6	17	11	36	1.03	na	0.44	0.39	
Solarcool® (1) Solargray® Glass									
1/4	6	17	36	11	1.03	na	0.37	0.46	

1. Data is based on center of glass performance of representative factory production samples. Actual values may vary due to the production process and manufacturing tolerances. All tabulated data is based on NFRC methodology using the LBNL Window 7.3 software.
 2. Transmittance and reflectance values based on spectrophotometric measurements and energy distribution of solar radiation.
 3. U-Value – A measure of the insulating characteristics of the glass or how much heat gain or loss occurs through the glass due to the difference between indoor and outdoor temperatures and is measured Btu/hr·ft²·°F. The lower the number, the better the insulating performance. This number is the reciprocal of the r-value. Winter argon represents the winter nighttime u-value performance when the cavity is filled with a 90% argon/10% air gas mixture

4. Solar Heat Gain Coefficient (SHGC) – Measures how well a window blocks (or shades) the heat from sunlight. SHGC is the fraction of solar radiation transmitted through a window or skylight, as well as the amount that is absorbed by the glass and reradiated to the interior. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits and the greater the shading ability. The SHGC is similar to the Shading Coefficient (SC), but also accounts for absorbed, converted and inwardly radiated solar energy.
 5. Light to solar gain (LSG) ratio is the ratio of visible light transmittance to solar heat gain coefficient.

Important glass design considerations and comprehensive technical information, including performance, thermal stress and wind load tools for all Vitro glasses, are available at VitroGlazings.com/glasstechnical. Monolithic Glass Data can also be found at VitroGlazings.com/glasstechnical or by calling 1-855-VITRO-GLS (887-6457).

