



REFLECTIVE INSULATED *Versalux*<sup>®</sup> W/MSVD (SPUTTER) LOW-E

Versalux<sup>®</sup> Performance Characteristics - Insulated Glass MSVD (Sputter) Low Emissivity Coated Clear Glass is 1/4" (6mm) in Thickness. Emissivity of Coated Surface is .043 & Total Solar Reflectance of 43%. Low E Coating on 3rd Glass Surface From Building Exterior.  
**CALCULATED BY LBNL WINDOW 5.2 v5.2.12 COMPUTER PROGRAM**

PRODUCT	Glass Thickness Nominal Inch (mm)	Coated Glass Surface	Exterior Appearance	Air Space <sup>®</sup> Thickness Nominal Inch (mm)	Transmittance %			LSG Ratio ▽	Outdoor Reflectance %		Indoor Reflectance % Visible	Customary System Values				Metric Values			
					Total Solar	Visible	Ultra Violet <sup>®</sup>		Total Solar	Visible		U-Value <sup>a</sup>		Shading Coefficient <sup>b</sup>	Solar Heat Gain Coefficient <sup>c</sup>	Relative Heat Gain <sup>d</sup> BTU Ft <sup>2</sup>	K-Value <sup>a</sup>		Relative Heat Gain <sup>d</sup> W/m <sup>2</sup>
												Winter Nighttime	Summer Daytime				Winter Nighttime	Summer Daytime	
<b>Versalux<sup>®</sup> Blue 2000R</b>	1/4" (6mm)	1	Subdued Silver Reflectance	1/2" (12.7mm)	6	13	1	1.00	29	35	12	0.29	0.28	0.16	0.13	35	1.65	1.56	134
		1	Blue, Low Reflectance		6	13	1	1.08	29	35	12	0.24	0.22	0.14	0.12	32	1.37	1.23	100
		2	Blue, Low Reflectance		6	13	1	0.81	9	9	28	0.24	0.28	0.18	0.16	40	1.65	1.56	126
		2	Blue, Low Reflectance		6	13	1	0.93	9	9	28	0.22	0.22	0.16	0.14	36	1.37	1.23	113
<b>Versalux<sup>®</sup> Blue 2000T</b>	1/4" (6mm)	1	Subdued Silver Reflectance	1/2" (12.7mm)	11	23	4	1.21	27	35	14	0.29	0.28	0.22	0.19	48	1.65	1.56	151
		1	Bright Blue Reflectance		11	23	3	1.28	27	35	14	0.24	0.22	0.21	0.18	45	1.37	1.23	142
		2**	Bright Blue Reflectance		11	23	3	1.10	11	12	27	0.29	0.28	0.24	0.21	52	1.65	1.56	164
		2**	Bright Blue Reflectance		11	23	3	1.15	11	12	27	0.24	0.22	0.23	0.20	49	1.37	1.23	154
	5/16" (8mm)	1	Subdued Silver Reflectance	0.2 (12.7mm)	8	18	2	1.13	26	34	12	0.29	0.27	0.19	0.16	41	1.65	1.56	129
		1	Bright Blue Reflectance		8	18	2	1.20	26	34	12	0.24	0.22	0.17	0.15	38	1.36	1.23	120
		2	Bright Blue Reflectance		8	18	2	1.00	8	9	27	0.29	0.27	0.21	0.18	46	1.63	1.56	144
		2	Bright Blue Reflectance		8	18	2	1.06	8	9	27	0.24	0.22	0.19	0.17	42	1.36	1.23	131
<b>Versalux<sup>®</sup> Green 2000R</b>	1/4" (6mm)	1	Subdued Silver Reflectance	1/2" (12.7mm)	8	20	1	1.33	28	35	16	0.29	0.28	0.17	0.15	38	1.65	1.56	121
		1	Green, Low Reflectance		8	20	1	1.43	28	35	16	0.24	0.22	0.16	0.14	35	1.37	1.23	111
		2	Green, Low Reflectance		8	20	1	1.18	9	16	28	0.29	0.28	0.20	0.17	43	1.65	1.56	135
		2	Green, Low Reflectance		8	20	1	1.25	9	16	28	0.24	0.22	0.18	0.16	39	1.37	1.23	123
	5/16" (8mm)	1	Subdued Silver Reflectance	1/2" (12.7mm)	6	18	1	1.38	28	35	15	0.29	0.27	0.16	0.13	35	1.65	1.55	110
		1	Green, Low Reflectance		6	18	1	1.50	28	35	15	0.24	0.22	0.14	0.12	32	1.36	1.23	99
		2	Green, Low Reflectance		6	18	1	1.20	7	14	28	0.29	0.27	0.18	0.15	40	1.65	1.56	125
		2	Green, Low Reflectance		6	18	1	1.29	7	14	28	0.24	0.22	0.16	0.14	35	1.36	1.23	112
<b>Versalux<sup>®</sup> Green 2000T</b>	1/4" (6mm)	1	Subdued Silver Reflectance	1/2" (12.7mm)	14	36	3	1.64	24	34	18	0.29	0.28	0.26	0.22	55	1.65	1.56	173
		1	Green, Low Reflectance		14	36	3	1.71	24	34	18	0.24	0.22	0.25	0.21	52	1.32	1.23	164
		2	Green, Low Reflectance		14	37	3	1.54	11	21	27	0.29	0.28	0.27	0.24	58	1.65	1.56	183
		2	Green, Low Reflectance		14	37	3	1.68	11	21	27	0.24	0.22	0.26	0.22	55	1.37	1.23	173
	5/16" (8mm)	1	Subdued Silver Reflectance	1/2" (12.7mm)	11	32	2	1.60	23	34	17	0.29	0.27	0.23	0.20	49	1.65	1.56	155
		1	Green, Low Reflectance		11	32	2	1.68	23	34	17	0.24	0.22	0.22	0.19	46	1.37	1.23	145
		2	Green, Low Reflectance		12	33	2	1.57	9	17	27	0.29	0.27	0.24	0.21	53	1.65	1.56	166
		2	Green, Low Reflectance		12	33	2	1.65	9	17	27	0.24	0.22	0.23	0.20	49	1.36	1.23	154
<b>Versalux<sup>®</sup> Blue R</b>	1/4" (6mm)	1	Silver, High Reflectance	1/2" (12.7mm)	8	16	2	1.00	35	36	14	0.29	0.28	0.19	0.16	41	1.65	1.56	130
		1	Blue, Medium Reflectance		8	16	2	1.07	35	36	14	0.24	0.22	0.18	0.15	39	1.37	1.23	122
		2**	Blue, Medium Reflectance		9	16	2	0.89	16	13	28	0.29	0.28	0.21	0.18	47	1.63	1.56	147
		2**	Blue, Medium Reflectance		9	16	2	0.94	16	13	28	0.24	0.22	0.20	0.17	43	1.37	1.23	136
<b>Versalux<sup>®</sup> Green R</b>	1/4" (6mm)	1	Subdued Silver Reflectance	1/2" (12.7mm)	10	23	2	1.28	30	36	18	0.29	0.28	0.21	0.18	45	1.65	1.56	141
		1	Green, Low Reflectance		10	23	2	1.35	30	36	18	0.24	0.22	0.20	0.17	42	1.37	1.23	133
		2**	Green, Low Reflectance		10	23	2	1.15	13	20	28	0.29	0.28	0.23	0.20	49	1.65	1.56	155
		2**	Green, Low Reflectance		10	23	2	1.28	13	20	28	0.24	0.22	0.21	0.18	46	1.37	1.23	144
<b>Versalux<sup>®</sup> Grey R</b>	1/4" (6mm)	1	Subdued Silver Reflectance	1/2" (12.7mm)	8	14	2	0.88	33	35	13	0.29	0.28	0.18	0.16	40	1.65	1.56	127
		1	Grey, Low Reflectance		8	14	2	0.93	33	35	13	0.24	0.22	0.17	0.15	38	1.37	1.23	119
		2**	Grey, Low Reflectance		8	14	2	0.78	15	10	28	0.29	0.28	0.21	0.18	45	1.65	1.56	143
		2**	Grey, Low Reflectance		8	14	2	0.82	15	10	28	0.24	0.22	0.19	0.17	42	1.37	1.23	132
<b>Versalux<sup>®</sup> Bronze R</b>	1/4" (6mm)	1	Subdued Silver Reflectance	1/2" (12.7mm)	9	16	2	0.94	34	35	14	0.29	0.28	0.19	0.17	42	1.65	1.56	133
		1	Bronze, Low Reflectance		9	16	2	1.00	34	35	14	0.24	0.22	0.18	0.16	40	1.37	1.23	125
		2**	Bronze, Low Reflectance		9	17	2	0.89	16	12	28	0.29	0.28	0.22	0.19	47	1.65	1.56	149
		2**	Bronze, Low Reflectance		9	17	2	0.94	16	12	28	0.24	0.22	0.20	0.18	44	1.37	1.23	138



# Versalux®

## Footnotes Apply to Tinted and Reflective Versalux® Monolithic, Insulated with Clear and Insulated with Low-E

<sup>1</sup> Pyrolytically Applied Low Emissivity Coating on Clear Float Glass. Coated Surface Emissivity .154 and Total Solar Reflectance 12 - 13%

<sup>2</sup> MSVD (sputter) Applied Low Emissivity Coating on Clear Glass. Coated Surface Emissivity .043 and Total Solar Reflectance 43%

▽ Light to Solar Gain Ratio (LSG) is Visible Light Transmittance ÷ Solar Heat Gain Coefficient. (*Spectrally Selective Glazing has VLT of ≥ 40% & LSG ratio of ≥ 1.25 as outlined in Federal Technology Alert DOE/EE-0173, Federal Energy Management Program.*)

@ Air Space Filling: Dark Bands Argon Filled – Light Bands Air Filled

▴ It is recommended these products be heat treated (heat strengthened or fully tempered) to withstand solar induced thermal stresses.

\*\* These products may require heat treating to withstand solar induced thermal stresses when the reflective coating is glazed towards the building's interior. (See pages 11-15).

**a** The Winter Nighttime U/R Values (K Values) are based on an outdoor temperature of 0°F (-17.8°C) an indoor temperature of 70°F (21°C) 15 mph (24km/h) outdoor air speed and no sun. The Summer Daytime U/R Values (K Value) are based on an outdoor temperature of 89°F (32°C), an indoor temperature of 75°F (24°C), a 7.5 mph (12km/h) outdoor air speed and a solar intensity of 248 BTU/Hr. per Ft<sup>2</sup> (790 w/m<sup>2</sup>).

**b** Shading Coefficient is the ratio of solar heat gain through a glass/or glass and shading combination compared to that of unshaded 1/8" (3.0mm) clear float glass at normal incidence. The shading coefficient of 1/8" (3.0mm) clear float glass is 1.00.

**c** Solar Heat Gain Coefficient is the solar heat gain through glass relative to the incident solar radiation. SHGC is equal to approximately 86% of the shading coefficient.

**d** Relative Heat Gain is the combination of solar heat gain (transmitted and that amount of absorbed energy that is conducted or convected to the interior) and heat transfer due to the indoor/outdoor temperature differential. (Based on an ASHRAE solar heat gain factor of 200 BTU/Hr. per Ft<sup>2</sup>. (637 w/m<sup>2</sup>) and outdoor air 14°F (7.8°C) warmer than indoor air with no shading devices.)

**e** From LBNL Window 5.2 v5.2.12 Computer Analysis (300-380 nanometers.) Environmental conditions assumed: NFRC 100-2001 summer and NFRC 100-2001 winter.

Performance data represents center of glass values calculated under the guidelines of LBNL Window 5.2 v5.2.12 computer analysis, assuming an air mass of 1.5.

*For values calculated under Window 4.1, visit our website at [www.visteon.com/floatglass](http://www.visteon.com/floatglass)*