

VigorSpace™ Commercial Series Energy Rating Information

All simulation of the following products have been performed in American National Fenestration Rating Concil (NFRC) NFRC 100-2010 procedures and NFRC Simulation Manual July 2013 in LBNL Windows7.3 and LBNL Therm7.3.

The Energy Rating provides U-value in W/m²·K and BTU/h·ft²·°F, Solar Heat Gain Coefficient(SHGC), Visible Transmittance(Tvis).

U-value is the rate of heat transfer of the window or door. U-Factor values generally range from 1.4 to 7.0 in W/m²·K. The Lower the U-factor, the better the window or door insulates.

Solar Heat Gain Coefficient(SHGC) is the fraction of solar energy transmitted and indicates how much solar heat window or door (glass and frame) gained and released inward. SHGC is measured on a scale of 0 to 1, values typically range from 0.25 to 0.80. The lower the SHGC, the less solar heat the window transmits.

Tvis is the fraction of how much light coming through the window or door (glass and frame). Tvis is measured on a scale of 0 to 1, the higher the value is, the more light coming through the window or door.

NOTES

1. U-value is the whole window U-value
2. SHGC is the whole window solar heat gain coefficient
3. Tvis is the whole window visible (light) transmittance
4. 5 / 12 / 5 means double 5mm clear tempered glass with 12mm air gap, Ar is argon gap
5. OL is Online Low-E coating
6. #2 is the 2nd surface of glass from window outside

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Glazing	U-value	U-value	SHGC	Tvis
	W/m ² ·K	BTU/h·ft ² ·°F		
SP100 Commercial Sliding Stacking Door				
Single Glazed				
6	5.78	1.02	0.70	0.74
6 LowE (OL120)	3.78	0.67	0.56	0.67
Laminated Glazed				
8.38 (4 + 0.38 pvb + 4)	5.65	1.00	0.65	0.73
8.38 (4 + 0.38 pvb + 4 LowE, OL120)	3.48	0.61	0.53	0.68
8.38 (4 Solar Reflective on EuroGrey 5840 + 0.38 pvb + 4)	5.56	0.98	0.29	0.35
8.38 (4 Solar Reflective on EuroGrey 5840 + 0.38 pvb + 4 LowE, OL120)	3.42	0.60	0.23	0.31
9.38 (5 + 0.38 pvb + 4)	5.64	0.99	0.63	0.72
9.38 (5 + 0.38 pvb + 4 LowE, OL120)	3.47	0.61	0.52	0.68
9.38 (5 Solar Reflective on EuroGrey 5840 + 0.38 pvb + 4)	5.55	0.98	0.28	0.35
9.38 (5 Solar Reflective on EuroGrey 5840 + 0.38 pvb + 4 LowE, OL120)	3.42	0.60	0.23	0.31
10.76 (5 + 0.76 pvb + 5)	5.59	0.98	0.62	0.72
10.76 (5 EuroGrey + 0.76 pvb + 5)	5.59	0.98	0.32	0.25
10.76 (5 + 0.76 pvb + 5, LowE, OL120)	3.46	0.61	0.52	0.68
11.14 (6 + 1.14 pvb + 6)	5.55	0.98	0.62	0.71
11.14 (6 EuroGrey + 1.14 pvb + 6)	5.55	0.98	0.31	0.25
11.14 (6 + 1.14 pvb + 6 LowE, OL120)	3.44	0.61	0.52	0.67
Double Glazed				
5 / 12 / 5	3.51	0.62	0.59	0.67
5 / 12 Ar / 5	3.34	0.59	0.58	0.68
5 lowE / 12 / 5 (OL120)	2.59	0.46	0.46	0.62
5 lowE / 12 Ar / 5 (OL120)	2.44	0.43	0.46	0.62
5 Solar Reflective on EuroGrey 5840 / 12 / 5 lowE (OL120)	2.29	0.40	0.21	0.29
5 Solar Reflective on EuroGrey 5840 / 12Ar / 5 lowE (OL120)	2.18	0.38	0.20	0.29
6 / 12 / 6	3.50	0.62	0.57	0.66
6 EuroGrey / 12 / 6	3.50	0.62	0.34	0.26
6 lowE / 12 / 6 (OL120)	2.58	0.45	0.45	0.62

SP100 Commercial Sliding Door				
Single Glazed				
6	5.99	1.05	0.68	0.71
6 LowE (OL120)	3.92	0.69	0.54	0.65
Laminated Glazed				
8.38 (4 + 0.38 pvb + 4)	5.86	1.03	0.62	0.71
8.38 (4 + 0.38 pvb + 4 LowE, OL120)	3.60	0.63	0.51	0.66
8.38 (4 Solar Reflective on EuroGrey 5840 + 0.38 pvb + 4)	5.75	1.01	0.27	0.33
8.38 (4 Solar Reflective on EuroGrey 5840 + 0.38 pvb + 4 LowE, OL120)	3.54	0.62	0.23	0.31
9.38 (5 + 0.38 pvb + 4)	5.84	1.03	0.61	0.70
9.38 (5 + 0.38 pvb + 4 LowE, OL120)	3.59	0.63	0.50	0.66
9.38 (5 Solar Reflective on EuroGrey 5840 + 0.38 pvb + 4)	5.74	1.01	0.26	0.33
9.38 (5 Solar Reflective on EuroGrey 5840 + 0.38 pvb + 4 LowE, OL120)	3.54	0.62	0.23	0.31
10.76 (5 + 0.76 pvb + 5)	5.68	1.00	0.63	0.71
10.76 (5 EuroGrey + 0.76 pvb + 5)	5.68	1.00	0.33	0.25
10.76 (5 + 0.76 pvb + 5, LowE, OL120)	3.52	0.62	0.53	0.67
11.14 (6 + 1.14 pvb + 6)	5.61	0.99	0.62	0.70
11.14 (6 EuroGrey + 1.14 pvb + 6)	5.61	0.99	0.31	0.25
11.14 (6 + 1.14 pvb + 6 LowE, OL120)	3.47	0.61	0.51	0.66
Double Glazed				
5 / 12 / 5	3.64	0.64	0.58	0.66
5 / 12 Ar / 5	3.46	0.61	0.57	0.66
5 lowE / 12 / 5 (OL120)	2.68	0.47	0.44	0.60
5 lowE / 12 Ar / 5 (OL120)	2.52	0.44	0.44	0.60
5 Solar Reflective on EuroGrey 5840 / 12 / 5 lowE (OL120)	2.37	0.42	0.21	0.29
5 Solar Reflective on EuroGrey 5840 / 12Ar / 5 lowE (OL120)	2.25	0.40	0.20	0.29
6 / 12 / 6	3.63	0.64	0.57	0.65
6 EuroGrey / 12 / 6	3.63	0.64	0.33	0.26
6 lowE / 12 / 6 (OL120)	2.67	0.47	0.43	0.61
SP100 Commercial Sliding Window				
Single Glazed				
6	6.16	1.09	0.65	0.69
6 LowE (OL120)	4.03	0.71	0.52	0.63
Laminated Glazed				
8.38 (4 + 0.38 pvb + 4)	6.03	1.06	0.60	0.68
8.38 (4 + 0.38 pvb + 4 LowE, OL120)	3.71	0.65	0.49	0.64
8.38 (4 Solar Reflective on EuroGrey 5840 + 0.38 pvb + 4)	5.93	1.04	0.26	0.32
8.38 (4 Solar Reflective on EuroGrey 5840 + 0.38 pvb + 4 LowE, OL120)	3.65	0.64	0.22	0.30
9.38 (5 + 0.38 pvb + 4)	6.02	1.06	0.58	0.68
9.38 (5 + 0.38 pvb + 4 LowE, OL120)	3.70	0.65	0.48	0.64
9.38 (5 Solar Reflective on EuroGrey 5840 + 0.38 pvb + 4)	5.91	1.04	0.25	0.32
9.38 (5 Solar Reflective on EuroGrey 5840 + 0.38 pvb + 4 LowE, OL120)	3.65	0.64	0.22	0.30
10.76 (5 + 0.76 pvb + 5)	5.85	1.03	0.60	0.69
10.76 (5 EuroGrey + 0.76 pvb + 5)	5.85	1.03	0.32	0.24
10.76 (5 + 0.76 pvb + 5, LowE, OL120)	3.63	0.64	0.51	0.65
11.14 (6 + 1.14 pvb + 6)	5.78	1.02	0.60	0.68
11.14 (6 EuroGrey + 1.14 pvb + 6)	5.78	1.02	0.30	0.24
11.14 (6 + 1.14 pvb + 6 LowE, OL120)	3.57	0.63	0.49	0.64
Double Glazed				
5 / 12 / 5	3.75	0.66	0.56	0.64
5 / 12 Ar / 5	3.56	0.63	0.55	0.64
5 lowE / 12 / 5 (OL120)	2.77	0.49	0.43	0.58
5 lowE / 12 Ar / 5 (OL120)	2.60	0.46	0.43	0.58
5 Solar Reflective on EuroGrey 5840 / 12 / 5 lowE (OL120)	2.44	0.43	0.20	0.28
5 Solar Reflective on EuroGrey 5840 / 12Ar / 5 lowE (OL120)	2.32	0.41	0.19	0.28
6 / 12 / 6	3.74	0.66	0.55	0.63
6 EuroGrey / 12 / 6	3.74	0.66	0.32	0.25

6 lowE / 12 / 6 (OL120)	2.75	0.48	0.42	0.59
SP100 Commercial Awning & Casement Window				
Single Glazed				
6	5.97	1.05	0.69	0.72
6 LowE (OL120)	3.92	0.69	0.53	0.64
Laminated Glazed				
8.38 (4 + 0.38 pvb + 4)	5.80	1.02	0.62	0.69
8.38 (4 + 0.38 pvb + 4 LowE, OL120)	3.56	0.63	0.50	0.65
8.38 (4 Solar Reflective on EuroGrey 5840 + 0.38 pvb + 4)	5.67	1.00	0.28	0.32
8.38 (4 Solar Reflective on EuroGrey 5840 + 0.38 pvb + 4 LowE, OL120)	3.49	0.62	0.23	0.31
9.38 (5 + 0.38 pvb + 4)	5.78	1.02	0.61	0.67
9.38 (5 + 0.38 pvb + 4 LowE, OL120)	3.55	0.62	0.49	0.64
9.38 (5 Solar Reflective on EuroGrey 5840 + 0.38 pvb + 4)	5.66	1.00	0.27	0.33
9.38 (5 Solar Reflective on EuroGrey 5840 + 0.38 pvb + 4 LowE, OL120)	3.49	0.61	0.23	0.31
10.76 (5 + 0.76 pvb + 5)	5.67	1.00	0.63	0.71
10.76 (5 EuroGrey + 0.76 pvb + 5)	5.67	1.00	0.33	0.25
10.76 (5 + 0.76 pvb + 5, LowE, OL120)	3.50	0.62	0.53	0.66
11.14 (6 + 1.14 pvb + 6)	5.60	0.99	0.62	0.70
11.14 (6 EuroGrey + 1.14 pvb + 6)	5.60	0.99	0.32	0.25
11.14 (6 + 1.14 pvb + 6 LowE, OL120)	3.46	0.61	0.52	0.66
Double Glazed				
5 / 12 / 5	3.61	0.64	0.57	0.64
5 / 12 Ar / 5	3.44	0.61	0.56	0.64
5 lowE / 12 / 5 (OL120)	2.63	0.46	0.45	0.60
5 lowE / 12 Ar / 5 (OL120)	2.47	0.44	0.45	0.59
5 Solar Reflective on EuroGrey 5840 / 12 / 5 lowE (OL120)	2.34	0.41	0.21	0.30
5 Solar Reflective on EuroGrey 5840 / 12Ar / 5 lowE (OL120)	2.23	0.39	0.20	0.29
6 / 12 / 6	3.60	0.63	0.56	0.64
6 EuroGrey / 12 / 6	3.60	0.63	0.32	0.26
6 lowE / 12 / 6 (OL120)	2.62	0.46	0.44	0.60
SP100 Commercial Hinged Door				
Single Glazed				
6	5.94	1.05	0.70	0.72
6 LowE (OL120)	3.89	0.68	0.55	0.65
Laminated Glazed				
8.38 (4 + 0.38 pvb + 4)	5.77	1.02	0.63	0.69
8.38 (4 + 0.38 pvb + 4 LowE, OL120)	3.54	0.62	0.50	0.65
8.38 (4 Solar Reflective on EuroGrey 5840 + 0.38 pvb + 4)	5.64	0.99	0.28	0.33
8.38 (4 Solar Reflective on EuroGrey 5840 + 0.38 pvb + 4 LowE, OL120)	3.48	0.61	0.24	0.31
9.38 (5 + 0.38 pvb + 4)	5.75	1.01	0.62	0.68
9.38 (5 + 0.38 pvb + 4 LowE, OL120)	3.53	0.62	0.49	0.65
9.38 (5 Solar Reflective on EuroGrey 5840 + 0.38 pvb + 4)	5.63	0.99	0.27	0.33
9.38 (5 Solar Reflective on EuroGrey 5840 + 0.38 pvb + 4 LowE, OL120)	3.47	0.61	0.23	0.31
10.76 (5 + 0.76 pvb + 5)	5.66	1.00	0.64	0.71
10.76 (5 EuroGrey + 0.76 pvb + 5)	5.66	1.00	0.32	0.25
10.76 (5 + 0.76 pvb + 5, LowE, OL120)	3.51	0.62	0.53	0.65
11.14 (6 + 1.14 pvb + 6)	5.60	0.99	0.63	0.70
11.14 (6 EuroGrey + 1.14 pvb + 6)	5.60	0.99	0.32	0.25
11.14 (6 + 1.14 pvb + 6 LowE, OL120)	3.45	0.61	0.52	0.65
Double Glazed				
5 / 12 / 5	3.59	0.63	0.58	0.65
5 / 12 Ar / 5	3.42	0.60	0.57	0.65
5 lowE / 12 / 5 (OL120)	2.62	0.46	0.46	0.61
5 lowE / 12 Ar / 5 (OL120)	2.46	0.43	0.45	0.60
5 Solar Reflective on EuroGrey 5840 / 12 / 5 lowE (OL120)	2.33	0.41	0.21	0.30
5 Solar Reflective on EuroGrey 5840 / 12Ar / 5 lowE (OL120)	2.22	0.39	0.20	0.29
6 / 12 / 6	3.58	0.63	0.56	0.64

6 EuroGrey / 12 / 6	3.58	0.63	0.32	0.26
6 lowE / 12 / 6 (OL120)	2.61	0.46	0.45	0.60
SP100 Commercial Fixed Window				
Single Glazed				
6	5.46	0.96	0.72	0.76
6 LowE (OL120)	3.56	0.63	0.59	0.69
Laminated Glazed				
8.38 (4 + 0.38 pvb + 4)	5.34	0.94	0.67	0.75
8.38 (4 + 0.38 pvb + 4 LowE, OL120)	3.28	0.58	0.55	0.69
8.38 (4 Solar Reflective on EuroGrey 5840 + 0.38 pvb + 4)	5.26	0.93	0.29	0.36
8.38 (4 Solar Reflective on EuroGrey 5840 + 0.38 pvb + 4 LowE, OL120)	3.23	0.57	0.24	0.33
9.38 (5 + 0.38 pvb + 4)	5.33	0.94	0.65	0.75
9.38 (5 + 0.38 pvb + 4 LowE, OL120)	3.27	0.58	0.55	0.70
9.38 (5 Solar Reflective on EuroGrey 5840 + 0.38 pvb + 4)	5.24	0.92	0.28	0.36
9.38 (5 Solar Reflective on EuroGrey 5840 + 0.38 pvb + 4 LowE, OL120)	3.23	0.57	0.24	0.33
10.76 (5 + 0.76 pvb + 5)	5.28	0.93	0.64	0.74
10.76 (5 EuroGrey + 0.76 pvb + 5)	5.28	0.93	0.33	0.26
10.76 (5 + 0.76 pvb + 5, LowE, OL120)	3.15	0.55	0.54	0.68
11.14 (6 + 1.14 pvb + 6)	5.54	0.98	0.63	0.73
11.14 (6 EuroGrey + 1.14 pvb + 6)	5.54	0.98	0.33	0.26
11.14 (6 + 1.14 pvb + 6 LowE, OL120)	3.13	0.55	0.53	0.67
Double Glazed				
5 / 12 / 5	3.32	0.58	0.61	0.70
5 / 12 Ar / 5	3.17	0.56	0.60	0.70
5 lowE / 12 / 5 (OL120)	2.45	0.43	0.46	0.64
5 lowE / 12 Ar / 5 (OL120)	2.31	0.41	0.46	0.64
5 Solar Reflective on EuroGrey 5840 / 12 / 5 lowE (OL120)	2.16	0.38	0.22	0.31
5 Solar Reflective on EuroGrey 5840 / 12Ar / 5 lowE (OL120)	2.06	0.36	0.21	0.30
6 / 12 / 6	3.31	0.58	0.60	0.64
6 EuroGrey / 12 / 6	3.31	0.58	0.33	0.26
6 lowE / 12 / 6 (OL120)	2.39	0.42	0.46	0.62
SP100 Glass Louver				
5 clear	5.42	0.95	0.71	0.75
6 clear	5.38	0.95	0.71	0.74
6 LowE (OL120)	3.45	0.61	0.57	0.68