Monolithic Glass Standards and Sizes

Quality Levels	Nominal Glass Thickness		Approximate Weight[4]		Thickness Tolerance Range[1]				Maximum Standard Size[2,3]	
					in.		mm		in.	mm
	in.	mm	lb/ft²	kg/m²	min.	max.	min.	max.		
Pilkington **Optifloat**™ Clear, Pilkington **Activ**™, Pilkington **Energy Advantage**™, Pilkington **Solar-E**™ Plus, Pilkington **OptiView**™*, and Pilkington **OptAR**™										
Q3	3/32	2.5	1.2	6	0.085	0.101	2.16	2.57	96 x 130	2438 x 3302
	1/8	3	1.6	8	0.115	0.134	2.92	3.40	102 x 130	2591 x 3302
	5/32	4	2.1	10	0.149	0.165	3.78	4.19	130 x 180	3302 x 4572
Q1/Q3	3/16	5	2.5	12	0.180	0.199	4.57	5.05	130 x 204	3302 x 5182
Q2/Q3	1/4	6	3.1	15	0.219	0.244	5.56	6.20		
Pilkington **Optifloat**™ Heavy Clear, Pilkington **Energy Advantage**™*** , and Pilkington **Solar-E**™****										
Q3	5/16	8	4.1	20	0.292	0.332	7.42	8.43	130 x 204	3302 x 5182
	3/8	10	5.2	25	0.355	0.406	9.02	10.31		
	1/2	12	6.6	32	0.469	0.531	11.91	13.49	130 X 204	3302 X 5182
Pilkington **Optifloat**™ Heavy Clear										
Q3	5/8	16	8.2	40	0.595	0.656	15.09	16.66	130 X 204	3302 X 5182
	3/4	19	9.9	48	0.719	0.781	18.26	19.84		
Pilkington **Optifloat**™ Heavy Grey or Bronze										
Q3	5/16	8	4.1	20.3	0.303	0.327	7.70	8.30	130 x 204	3302 x 5182
	3/8	10	5.2	25.4	0.382	0.406	9.70	10.30		
	1/2	12	6.6	32.0	0.469	0.531	11.91	13.49	130 x 204	3302 x 5182
Pilkington **Optifloat**™ Grey or Bronze										
Q3	1/8	3.2	1.6	8.0	0.115	0.134	2.92	3.40	102 x 130	2591 x 3302
	3/16	5	2.6	12.7	0.189	0.205	4.80	5.20	130 x 204	3302 x 5182
	1/4	6	3.1	15.2	0.228	0.244	5.80	6.20	130 x 204	3302 x 5182
Pilkington **Optifloat**™ Heavy Blue-Green										
Q3	5/16	8	4.1	20.3	0.303	0.327	7.70	8.30	130 x 204	3302 x 5182
	3/8	10	5.2	25.4	0.382	0.406	9.70	10.30		
Pilkington **Optifloat**™ Blue-Green, Green, Pilkington **EverGreen**™, Pilkington **Graphite Blue**™, and Pilkington **SuperGrey**™										
Q3	1/8	3.2	1.6	8.0	0.115	0.134	2.92	3.40	102 x 130	2591 x 3302
	3/16	5	2.6	12.7	0.189	0.205	4.80	5.20	130 x 204	3302 x 5182
	1/4	6	3.1	15.2	0.228	0.244	5.80	6.20	130 x 204	3302 x 5182
Pilkington **Arctic Blue**™ High Performance Tint										
Q3	5/32	4	2.1	10.1	0.150	0.165	3.80	4.20	130 x 180	3302 x 4572
	1/4	6	3.1	15.2	0.228	0.244	5.80	5.80	130 x 204	3302 x 5182
	3/8	10	5.2	25.4	0.382	0.406	9.70	10.30	130 x 204	3302 x 5182
Pilkington **Eclipse Advantage**™, Pilkington **Mirropane**™ and Pilkington **MirroView**™										
Q3	1/4	6	3.1	15.2	0.228	0.244	5.80	6.20	130 x 204	3302 x 5182
Pilkington **Optiwhite**™										
Q3	1/8	3.2	1.6	8.0	0.115	0.134	2.92	3.40	96x130	2438x3302
	3/16	5	2.5	12	0.180	0.199	4.57	5.05	130 x 204	3302 x 5182
	1/4	6	3.1	15.2	0.228	0.244	5.80	6.20		
	5/16	8	4.1	20.3	0.303	0.327	7.70	8.30		
	3/8	10	5.2	25	0.355	0.406	9.02	10.31		
	1/2	12	6.6	32	0.469	0.531	11.91	13.49		
	5/8	15	7.8	38.0	0.571	0.61	14.50	15.50		
	3/4	19	9.8	48.2	0.709	0.787	18.0	20.0		
Pilkington Texture Glass (all products except as noted below)										
EN 572-5	5/32	4	2.1	10.1	0.142	0.157	3.80	4.20	52.0 x 83.9	1320 x 2130
	1/4	6	3.1	15.2	0.228	0.244	5.70	6.30		
Pilkington Texture Glass **Reeded**™										
EN 572-5	5/32	4	2.1	10.1	0.150	0.165	3.80	4.20	52.0 x 83.9	1320 x 2130
Pilkington Texture Glass **Austral**™ and **Morisco**™										
EN 572-5	5/32	4	2.1	10.1	0.142	0.157	3.80	4.20	63.0 x 98.4	1600 x 2500
Pilkington Texture Glass **Rayado**™, **Sparkel**™ and **Yacare**™										
EN 572-5	5/32	4	2.1	10.1	0.142	0.157	3.80	4.20	57.1 x 88.6	1450 x 2250

1. Per ASTM C 1036; with exception of Pilkington Texture Glass
2. Size listed may, in some cases, be too large to meet applicable static load requirements.
3. Certain other thicknesses and sizes may be available upon request
4. Based on the mean of the thickness range. Note glass density = 158 lb./cu. ft.
5. Coated glasses meet quality level of ASTM C 1376

* Pilkington **OptView**™ is not available in 3/32" (2.5 mm). ** Pilkington **Optifloat**™ Blue-Green: 1/8" (3.2 mm) and 3/16" (5 mm) are not standard products. Subject to availability.
*** The largest size for Pilkington **Energy Advantage**™ 1/2" (12 mm) is 130 x 204. **** Pilkington **Solar-E**™ is not available in 1/2" (12 mm).

Uncoated Monolithic Glass Performance Data[1,10]

	Nominal Glass Thickness		Visible Light[2]			Solar Energy[2]			U-Factor[5]			Solar Heat Gain Coefficient[7]	Shading Coefficient[8]
	in.	mm	Transmittance[3] %	Reflectance[4] % Outside	Reflectance[4] % Inside	Transmittance[3] %	Reflectance[4] %	UV Transmittance[2] %	U.S. Summer*	U.S. Winter*	European[6]**		
Pilkington **Optifloat™** Clear													
	3/32	2.5	91	8	8	89	8	82	0.95	1.05	5.8	0.90	1.03
	1/8	3	91	8	8	88	8	80	0.94	1.04	5.8	0.89	1.02
	5/32	4	90	8	8	86	8	78	0.94	1.04	5.8	0.88	1.01
	3/16	5	89	8	8	80	7	65	0.93	1.03	5.7	0.83	0.96
	1/4	6	88	8	8	77	7	63	0.93	1.03	5.7	0.82	0.94
	5/16	8	87	8	8	73	7	57	0.92	1.01	5.6	0.79	0.91
	3/8	10	86	8	8	70	7	54	0.91	1.00	5.6	0.77	0.88
	1/2	12	84	8	8	64	6	49	0.89	0.98	5.5	0.73	0.84
	5/8	16	83	8	8	59	6	45	0.88	0.97	5.4	0.70	0.81
	3/4	19	81	7	7	55	6	41	0.86	0.95	5.3	0.67	0.78
Pilkington **Optiwhite™** low iron													
	1/8	3	91	9	9	91	8	88	0.94	1.04	5.8	0.91	1.04
	5/32	4	91	9	9	90	8	87	0.94	1.04	5.8	0.91	1.04
	3/16	5	91	9	9	90	8	86	0.93	1.03	5.7	0.91	1.04
	1/4	6	91	9	9	90	8	85	0.93	1.02	5.7	0.90	1.04
	5/16	8	91	9	9	89	8	84	0.92	1.01	5.6	0.90	1.03
	3/8	10	91	9	9	88	8	83	0.91	1.00	5.6	0.89	1.03
	1/2	12	90	9	9	88	8	81	0.89	0.99	5.5	0.89	1.02
	5/8	15	90	9	9	86	8	77	0.88	0.97	5.4	0.88	1.01
	3/4	19	90	8	8	86	8	78	0.86	0.95	5.3	0.88	1.01
Pilkington **Optifloat™** Tints													
Green	1/4	6	76	7	7	46	5	29	0.93	1.03	5.7	0.61	0.70
Blue-Green	1/4	6	75	7	7	48	6	32	0.93	1.02	5.7	0.62	0.72
	5/16	8	70	7	7	40	5	25	0.92	1.01	5.6	0.57	0.66
	3/8	10	67	6	6	36	5	21	0.91	1.00	5.6	0.54	0.63
Bronze	1/8	3	68	6	6	65	6	37	0.94	1.04	5.8	0.73	0.84
	3/16	5	59	6	6	55	6	28	0.93	1.03	5.7	0.67	0.77
	1/4	6	51	6	6	48	5	22	0.93	1.02	5.7	0.62	0.72
	5/16	8	44	5	5	39	5	16	0.92	1.01	5.6	0.57	0.65
	3/8	10	39	5	5	34	5	13	0.91	1.00	5.6	0.53	0.61
	1/2	12	29	5	5	25	4	8	0.89	0.98	5.5	0.48	0.55
Grey	1/8	3	61	6	6	59	6	35	0.94	1.04	5.8	0.69	0.80
	3/16	5	50	6	6	48	5	26	0.93	1.03	5.7	0.62	0.71
	1/4	6	44	5	5	41	5	21	0.93	1.02	5.7	0.58	0.66
	5/16	8	33	5	5	31	5	14	0.92	1.01	5.6	0.51	0.59
	3/8	10	28	5	5	26	5	11	0.91	1.00	5.6	0.48	0.55
	1/2	12	19	4	4	17	4	7	0.89	0.98	5.5	0.42	0.49
Pilkington **Graphite Blue™**													
	1/4	6	61	6	6	54	6	37	0.93	1.02	5.7	0.67	0.77
	5/16	8	54	6	6	46	5	30	0.92	1.01	5.6	0.61	0.70
	3/8	10	47	5	5	39	5	25	0.91	1.00	5.6	0.57	0.65
Pilkington **EverGreen™** High Performance Tint													
	1/8	3	76	7	7	49	6	27	0.94	1.04	5.8	0.63	0.72
	3/16	5	73	7	7	42	5	21	0.93	1.03	5.7	0.58	0.67
	1/4	6	66	6	6	33	5	14	0.93	1.02	5.7	0.53	0.60
Pilkington **Arctic Blue™** High Performance Tint													
	5/32	4	65	6	6	45	5	31	0.94	1.04	5.8	0.60	0.69
	1/4	6	53	6	6	33	5	20	0.93	1.02	5.7	0.52	0.60
	5/16	8	42	5	6	25	5	13	0.92	1.01	5.6	0.47	0.54
	3/8	10	41	5	5	21	5	13	0.91	1.00	5.6	0.45	0.52
Pilkington **SuperGrey™** High Performance Tint													
	1/8	3	25	5	5	23	4	6	0.94	1.04	5.8	0.45	0.52
	3/16	5	12	4	4	11	4	2	0.93	1.03	5.7	0.38	0.44
	1/4	6	9	4	4	8	4	1	0.93	1.03	5.7	0.36	0.41

*U.S. U-Factor (Btu/hr.sq ft. ◦F) is based on NFRC/ASTM standards, **European U-Factor (W/sq m K) is based on EN 410/673 (CEN) standard.
All performance values are center-of-glass values calculated using the LBNL Window 6.3 program. See page 51 for explanation of references - [1, 10].

Coated Monolithic Glass Performance Data[1,10]

	Nominal Glass Thickness		Visible Light[2]			Solar Energy[2]			U-Factor[5]			Solar Heat Gain Coefficient[7]	Shading Coefficient[8]
	in.	mm	Transmittance[3] %	Reflectance[4] % Outside	Reflectance[4] % Inside	Transmittance[3] %	Reflectance[4] %	UV Transmittance[2] %	U.S. Summer*	U.S. Winter*	European**		
Pilkington **Energy Advantage™** thermal control low-e (coating on #2 surface)													
	3/32	2.5	84	11	11	75	11	67	0.50	0.66	3.7	0.77	0.89
	1/8	3	84	11	11	74	11	66	0.50	0.65	3.7	0.77	0.88
	5/32	4	84	11	11	73	11	64	0.50	0.65	3.7	0.76	0.87
	3/16	5	83	11	12	68	10	53	0.49	0.65	3.7	0.71	0.82
	1/4	6	82	10	11	66	10	49	0.49	0.64	3.6	0.70	0.81
	5/16	8	81	10	11	62	9	45	0.49	0.64	3.6	0.67	0.77
	3/8	10	80	10	11	59	9	42	0.49	0.63	3.6	0.65	0.75
	1/2	12	79	10	11	56	8	42	0.49	0.63	3.6	0.63	0.73
Pilkington **Solar-E™** solar control low-e (coating on #2 surface)													
Clear	1/8	3	60	8	9	46	8	48	0.50	0.66	3.7	0.54	0.63
	5/32	4	60	8	9	45	8	46	0.50	0.65	3.7	0.54	0.62
	3/16	5	60	7	9	44	7	44	0.50	0.65	3.7	0.53	0.61
	1/4	6	60	8	9	44	7	44	0.50	0.65	3.7	0.53	0.61
	5/16	8	59	8	9	42	7	41	0.50	0.64	3.7	0.52	0.59
	3/8	10	60	8	9	40	7	38	0.49	0.64	3.6	0.50	0.58
Pilkington **Solar-E™** Plus solar control low-e (coating on #2 surface)													
Blue-Green	1/4	6	41	6	9	24	5	19	0.50	0.65	3.7	0.38	0.43
	5/16	8	39	6	9	21	5	15	0.50	0.65	3.7	0.35	0.41
EverGreen	1/4	6	38	6	9	17	5	8	0.50	0.65	3.7	0.32	0.37
	5/16	8	34	6	9	14	5	5	0.50	0.65	3.7	0.30	0.34
Graphite Blue	1/4	6	35	6	9	28	5	23	0.50	0.65	3.7	0.41	0.47
	5/16	8	30	6	9	23	5	18	0.50	0.64	3.7	0.37	0.43
Arctic Blue	1/4	6	30	5	8	17	5	11	0.50	0.65	3.7	0.32	0.37
	5/16	8	27	6	8	14	5	9	0.50	0.65	3.7	0.30	0.35
Grey	1/4	6	24	5	9	19	5	12	0.50	0.65	3.7	0.34	0.39
	5/16	8	19	5	8	15	5	9	0.50	0.64	3.7	0.31	0.36
Pilkington **Eclipse Advantage™** solar control low-e (coating on #2 surface)													
Clear	1/4	6	67	25	28	58	19	30	0.53	0.67	3.7	0.62	0.72
	5/16	8	66	25	28	55	17	29	0.53	0.67	3.7	0.60	0.69
Blue-Green	1/4	6	56	19	27	35	11	16	0.53	0.67	3.7	0.46	0.53
	5/16	8	53	17	27	30	10	13	0.53	0.67	3.7	0.42	0.48
EverGreen	1/4	6	48	15	27	23	8	7	0.53	0.67	3.7	0.37	0.43
	5/16	8	43	13	27	18	7	4	0.53	0.67	3.7	0.34	0.39
Arctic Blue	1/4	6	39	12	27	23	8	10	0.53	0.67	3.7	0.37	0.42
	5/16	8	32	10	27	17	7	7	0.53	0.67	3.7	0.33	0.38
Bronze	1/4	6	38	11	27	35	10	11	0.53	0.67	3.7	0.46	0.53
	5/16	8	31	9	26	28	8	8	0.53	0.67	3.7	0.41	0.47
Grey	1/4	6	32	10	27	29	8	10	0.53	0.67	3.7	0.42	0.48
	5/16	8	25	8	27	22	7	7	0.53	0.67	3.7	0.37	0.42
Pilkington **Eclipse™** Gold (coating on #2 surface)													
	1/4	6	40	36	45	45	25	9	0.93	1.02	5.7	0.54	0.62
	5/16	8	40	34	44	42	23	8	0.92	1.01	5.6	0.53	0.61
Pilkington **Eclipse™** Sunset Gold (coating on #2 surface)													
	1/4	6	24	16	44	30	12	3	0.93	1.02	5.7	0.48	0.55
Pilkington **Activ™** self-cleaning (coating on #1 surface)													
Clear	1/8	3	84	15	15	80	12	49	0.94	1.04	5.8	0.82	0.95
	5/32	4	83	15	15	79	12	47	0.94	1.04	5.8	0.81	0.93
	3/16	5	83	15	14	77	12	46	0.93	1.03	5.7	0.80	0.92
	1/4	6	82	15	15	75	12	44	0.93	1.02	5.7	0.79	0.90
Blue	1/4	6	49	14	9	32	11	14	0.93	1.02	5.7	0.50	0.57

*U.S. U-Factor (Btu/hr.sq ft. °F) is based on NFRC/ASTM standards, **European U-Factor (W/sq m K) is based on EN 410/673 (CEN) standard.

All performance values are center-of-glass values calculated using the LBNL Window 6.3 program. See page 51 for explanation of references - [1, 10].

Laminated Monolithic Glass Performance Data[1, 10]

	Nominal Glass Thickness		Visible Light[2]			Solar Energy[2]			U-Factor[5]			Solar Heat Gain Coefficient[7]	Shading Coefficient[8]
	in.	mm	Transmittance[3] %	Reflectance[4] %		Transmittance[3] %	Reflectance[4] %	UV Transmittance[2] %	U.S. Summer*	U.S. Winter*	European**		
				Outside	Inside								
Pilkington **OptiView**™	1/4	6.8	92	1.7	1.7	70	4	<1	0.68	0.80	4.6	0.77	0.88
Clear Glass (non-laminated)	1/4	6	88	8	8	77	7	63	0.93	1.03	5.7	0.82	0.94
Pilkington **OptiView**™	5/16	8.8	90	1.7	1.7	67	4	<1	0.67	0.79	4.5	0.75	0.86
Clear Glass (non-laminated)	5/16	8	87	8	8	73	7	57	0.92	1.01	5.6	0.79	0.91
Pilkington **OptiView**™	1/2	12.8	88	1.7	1.7	62	3	<1	0.66	0.77	4.4	0.71	0.82
Clear Glass (non-laminated)	1/2	12	84	8	8	64	6	49	0.89	0.98	5.5	0.73	0.84

Clear float glass performance based on non-laminated, monolithic glass. (Note - all thicknesses are nominal)

Thickness of laminated glass = thickness of glass layer + thickness of pvb + thickness of glass layer

- 6.8 mm Pilkington **OptiView**™ Single Laminated Glass = 3 mm Pilkington **OptiView**™ (#1) + 0.8 mm clear pvb layer + 3 mm Pilkington **OptiView**™ (#4)
- 8.8 mm Pilkington **OptiView**™ Single Laminated Glass = 4 mm Pilkington **OptiView**™ (#1) + 0.8 mm clear pvb layer + 4 mm Pilkington **OptiView**™ (#4)
- 12.8 mm Pilkington **OptiView**™ Single Laminated Glass = 6 mm Pilkington **OptiView**™ (#1) + 0.8 mm clear pvb layer + 6 mm Pilkington **OptiView**™ (#4)

Double Laminated Insulating Glass Unit Performance Data[1, 10]

Nominal Glass Thickness		Visible Light[2]			Solar Energy[2]			U-Factor[5]						Solar Heat Gain Coefficient[7]	Shading Coefficient[8]
in.	mm	Transmittance[3] %	Reflectance[4] %		Transmittance[3] %	Reflectance[4] %	UV Transmittance[2] %	U.S. Summer*		U.S. Winter*		European**			
			Outside	Inside				Air	Argon	Air	Argon	Air	Argon		
Pilkington **OptiView**™ Outer Lite (Coating on #1 and #2 Surface) and Pilkington **OptiView**™ Inner Lite (Coating on #3 and #4 Surface)															
1/4	6.8	84	3	3	54	5	<1	0.33	0.30	0.33	0.30	1.9	1.7	0.66	0.76
5/16	8.8	81	3	3	50	5	<1	0.32	0.30	0.32	0.29	1.9	1.7	0.64	0.73
1/2	12.8	77	3	3	43	4	<1	0.32	0.29	0.32	0.29	1.9	1.7	0.59	0.68

An insulating unit consists of two lites of equal glass thickness.

Thickness of Double Laminated Insulating Glass = thickness of Single Laminated Glass layer + air space thickness + thickness of Single Laminated Glass layer

- 26.3 mm Pilkington **OptiView**™ Double Laminated Insulating Glass =
  6.8 mm Pilkington **OptiView**™ Single Laminated Glass + 12.7 mm airspace + 6.8 mm Pilkington **OptiView**™ Laminated Single Glass
- 30.3 mm Pilkington **OptiView**™ Double Laminated Insulating Glass =
  8.8 mm Pilkington **OptiView**™ Single Laminated Glass + 12.7 mm airspace + 8.8 mm Pilkington **OptiView**™ Laminated Single Glass
- 38.3 mm Pilkington **OptiView**™ Double Laminated Insulating Glass =
  12.8 mm Pilkington **OptiView**™ Single Laminated Glass + 12.7 mm airspace + 12.8 mm Pilkington **OptiView**™ Laminated Single Glass

Vacuum Glazing Performance Data

	Thickness		U-Factor[5] - European		Solar Heat Gain Coefficient[7]
	in.	mm	W/Sq. m.K	Btu/hr.sq ft.°F	
IGU with Low-e	0.81	20.5	1.9	0.33	0.69
Pilkington **Spacia™** *	0.24	6.2	1.4	0.25	0.66
Pilkington **Spacia™** Cool*	0.24	6.2	1.0	0.18	0.49
Pilkington **Spacia™** 21 Clear**	0.72	18.2	0.9	0.16	0.51

*Double glazed unit
**Triple glazed unit

Sound Control Performance Data

	Nominal Glass Thickness		dB Sound Reduction Index By Octave Band - Hz						
	in.	mm	125	250	500	1000	2000	4000	STC
Pilkington **Optiphon™**									
	5/16	8.8	30	30	32	36	38	43	36
	3/8	10.8	31	32	33	37	38	47	37
Monolithic Clear Glass									
	3/8	10	26	28	31	32	35	43	34
	5/16	8	20	24	29	34	29	37	32
	1/4	6	18	23	30	35	27	32	31
Clear Insulating Unit*									
	1/4	6	20	18	28	38	34	38	31

- Laboratory measured to the ISO 140-3 standard. Monolithic, unlaminated clear glass tested.
- Laboratory measured to the ASTM E90-09 standard. Other configurations are available through special order.

* Insulating glass unit constructed of two lites of equal glass thickness and 1/2" (12.7 mm) airspace.

Insulating Glass Unit Performance Data[1,10]

	Nominal Glass Thickness		Visible Light[2]			Solar Energy[2]			U-Factor[5]			Solar Heat Gain Coefficient[7]	Shading Coefficient[8]
			Transmittance[3] %	Reflectance[4] %		Transmittance[3] %	Reflectance[4] %	UV Transmittance[2] %	U.S. Summer*	U.S. Winter*	European**		
	in.	mm		Outside	Inside								
Pilkington Uncoated Float Glass outer lite and Pilkington **Optifloat™** Clear inner lite													
Clear	3/32	2	83	15	15	79	14	70	0.51	0.48	2.8	0.82	0.94
	1/8	3	83	15	15	77	14	67	0.51	0.48	2.8	0.81	0.93
	5/32	4	82	15	15	75	14	64	0.50	0.48	2.8	0.79	0.91
	3/16	5	79	15	15	64	12	50	0.50	0.48	2.8	0.73	0.83
	1/4	6	78	15	15	61	12	47	0.50	0.47	2.8	0.71	0.81
Green	1/4	6	68	12	14	38	8	23	0.50	0.47	2.8	0.49	0.56
Blue-Green	1/4	6	67	12	14	39	8	26	0.50	0.47	2.8	0.50	0.58
Bronze	1/8	3.2	62	10	13	57	10	33	0.51	0.48	2.8	0.64	0.73
	3/16	5	53	9	13	45	8	23	0.50	0.48	2.8	0.55	0.64
	1/4	6	45	8	12	38	7	18	0.50	0.47	2.8	0.50	0.58
Grey	1/8	3.2	55	9	13	52	9	31	0.51	0.48	2.8	0.59	0.68
	3/16	5	45	8	13	39	7	21	0.50	0.48	2.8	0.50	0.58
	1/4	6	39	7	12	32	6	17	0.50	0.47	2.8	0.45	0.52
Pilkington **Graphite Blue™**	1/4	6	54	9	13	43	8	29	0.50	0.47	2.8	0.55	0.63
	5/16	8	47	8	13	35	7	23	0.49	0.47	2.8	0.48	0.55
Pilkington **Evergreen™** High Performance Tint	1/8	3	70	12	14	43	8	24	0.51	0.48	2.8	0.52	0.60
	3/16	5	65	11	14	35	7	18	0.50	0.48	2.8	0.46	0.53
	1/4	6	58	10	13	28	6	11	0.50	0.47	2.8	0.40	0.46
Pilkington **Arctic Blue™** High Performance Tint	5/32	4	59	10	13	40	7	28	0.50	0.48	2.8	0.49	0.57
	1/4	6	47	8	13	27	6	17	0.50	0.47	2.8	0.40	0.46
	5/16	8	37	7	12	20	5	10	0.49	0.47	2.8	0.34	0.39
Pilkington **Supergrey™** High Performance Tint	1/8	3	23	5	12	20	5	6	0.51	0.48	2.8	0.33	0.38
	3/16	5	11	4	12	9	4	2	0.50	0.48	2.8	0.24	0.28
	1/4	6	8	4	11	6	4	1	0.50	0.47	2.8	0.22	0.25

An insulating unit consists of two lites of equal glass thickness, and a 1/2 in. (12.7 mm) airspace.

*U.S. U-Factor (Btu/hr.sq ft. °F) is based on NFRC/ASTM standards, **European U-Factor (W/sq m K) is based on EN 410/673 (CEN) standard.

All performance values are center-of-glass values calculated using the LBNL Window 6.3 program. See Pilkington Architectural Product Guide for explanation of references - [1, 10].

One-Way Mirror Performance Data

Product	Nominal Glass Thickness		Glass Substrate	Visible[2] Transmittance (%)	Visible[4] Reflectance Coated Side (%)	Visible[4] Reflectance Glass Side (%)	Recommended Light Ratio	Proper Glazing
	in.	mm						
Pilkington **Mirropane™**	1/4	6	Grey	11	68	16	8:1 Subject-side: Observer-	Mirror coating toward **subject-side**
Pilkington **MirroView™**	1/8	3	Clear	20	76	70	-	Mirror coating toward **viewer-side**
	1/4	6	Clear	20	74	66	-	Mirror coating toward **viewer-side**

- Typical values of Pilkington production are provided.
- Visible data is based on laboratory spectrophotometric measurements weighted by the factors in W5_NFRC_2003.STD in LBNL Window 5.2 software.

Pilkington **Energy Advantage™** Low-e **Insulating Glass Unit Performance Data**[1,10]

	Nominal Glass Thickness		Visible Light[2]			Solar Energy[2]			U-Factor[5]						Solar Heat Gain Coefficient[7]	Shading Coefficient[8]
			Transmittance[3] %	Reflectance[4] %		Transmittance[3] %	Reflectance[4] %	UV Transmittance[2] %	U.S. Summer*		U.S. Winter*		European[6**]			
	in.	mm		Outside	Inside				Air	Argon	Air	Argon	Air	Argon		
Pilkington Uncoated Float Glass outer lite and Pilkington **Energy Advantage™** low-e (coating on #3 surface) inner lite																
Clear	3/32	2.5	77	18	17	67	17	58	0.33	0.28	0.34	0.29	1.9	1.6	0.76	0.88
	1/8	3	77	17	17	66	17	55	0.33	0.28	0.34	0.29	1.9	1.6	0.75	0.87
	5/32	4	77	17	16	64	17	53	0.33	0.28	0.34	0.29	1.9	1.5	0.74	0.85
	3/16	5	74	17	17	55	15	41	0.33	0.28	0.33	0.29	1.8	1.5	0.68	0.79
	1/4	6	73	17	16	52	14	37	0.33	0.28	0.33	0.29	1.8	1.5	0.67	0.77
Green	1/4	6	63	13	15	33	9	18	0.33	0.28	0.33	0.29	1.8	1.5	0.44	0.50
Blue-Green	1/4	6	62	13	15	34	9	21	0.33	0.28	0.33	0.29	1.8	1.5	0.46	0.52
Bronze	1/8	3	58	12	15	48	12	27	0.33	0.28	0.34	0.29	1.9	1.6	0.58	0.67
	3/16	5	49	10	15	38	10	19	0.33	0.28	0.33	0.29	1.8	1.5	0.50	0.58
	1/4	6	42	8	14	32	8	14	0.33	0.28	0.33	0.29	1.8	1.5	0.45	0.52
Grey	1/8	3	52	10	15	43	10	26	0.33	0.28	0.34	0.29	1.9	1.6	0.53	0.61
	3/16	5	42	8	15	32	8	17	0.33	0.28	0.33	0.29	1.8	1.5	0.45	0.51
	1/4	6	36	7	14	27	7	13	0.33	0.28	0.33	0.29	1.8	1.5	0.40	0.46
Pilkington **Graphite Blue™**	1/4	6	50	10	14	37	10	23	0.33	0.28	0.33	0.29	1.8	1.5	0.50	0.57
	5/16	8	44	9	14	30	8	18	0.33	0.28	0.33	0.28	1.8	1.5	0.44	0.50
Pilkington **EverGreen™** High Performance Tint	1/8	3	65	14	16	37	9	20	0.33	0.28	0.34	0.29	1.9	1.6	0.46	0.53
	3/16	5	61	13	16	31	8	14	0.33	0.28	0.33	0.29	1.8	1.5	0.41	0.47
	1/4	6	54	11	14	24	7	9	0.33	0.28	0.33	0.29	1.8	1.5	0.35	0.40
Pilkington **Arctic Blue™** High Performance Tint	5/32	4	55	11	15	34	8	23	0.33	0.28	0.34	0.29	1.9	1.5	0.44	0.50
	1/4	6	43	9	14	23	7	13	0.33	0.28	0.33	0.29	1.8	1.5	0.34	0.39
	5/16	8	35	7	14	17	6	8	0.33	0.28	0.33	0.28	1.8	1.5	0.29	0.33
Pilkington **Supergrey™** High Performance Tint	1/8	3	21	5	14	16	5	5	0.33	0.28	0.34	0.29	1.9	1.6	0.27	0.31
	3/16	5	10	4	14	7	4	2	0.33	0.28	0.33	0.29	1.8	1.5	0.18	0.21
	1/4	6	7	4	13	5	4	1	0.33	0.28	0.33	0.29	1.8	1.5	0.16	0.18

An insulating unit consists of two lites of equal glass thickness, and a 1/2 in. (12.7 mm) airspace.

*U.S. U-Factor (Btu/hr.sq ft. °F) is based on NFRC/ASTM standards, **European U-Factor (W/sq m K) is based on EN 410/673 (CEN) standard.

All performance values are center-of-glass values calculated using the LBNL Window 6.3 program. See Pilkington Architectural Product Guide for explanation of references - [1, 10].

Pilkington **Energy Advantage™** Low-e **Insulating Glass Unit Performance Data**[1,10]

	Nominal Glass Thickness		Visible Light[2]			Solar Energy[2]			U-Factor[5]						Solar Heat Gain Coefficient[7]	Shading Coefficient[8]
			Transmittance[3] %	Reflectance[4] %		Transmittance[3] %	Reflectance[4] %	UV Transmittance[2] %	U.S. Summer*		U.S. Winter*		European[6]**			
	in.	mm		Outside	Inside				Air	Argon	Air	Argon	Air	Argon		
Pilkington **Energy Advantage™** Low-e (coating on #2 surface) outer lite and Pilkington **Optifloat™** Clear inner lite																
	3/32	2.5	77	17	18	67	16	58	0.33	0.28	0.34	0.29	1.9	1.6	0.70	0.81
	1/8	3	77	17	17	66	16	55	0.33	0.28	0.34	0.29	1.9	1.6	0.69	0.80
	5/32	4	77	16	17	64	15	53	0.33	0.28	0.34	0.29	1.9	1.5	0.69	0.79
	3/16	5	74	17	17	55	14	41	0.33	0.28	0.33	0.29	1.8	1.5	0.63	0.73
	1/4	6	73	16	17	52	13	37	0.33	0.28	0.33	0.29	1.8	1.5	0.62	0.71
	5/16	8	71	15	16	47	12	32	0.33	0.28	0.33	0.28	1.8	1.5	0.59	0.67
	3/8	10	69	15	16	43	12	29	0.32	0.27	0.33	0.28	1.8	1.5	0.56	0.64
	1/2	12	67	15	16	39	11	27	0.32	0.28	0.32	0.28	1.8	1.5	0.53	0.61
Pilkington **Energy Advantage™** Low-e (coating on #2 surface) outer lite and Pilkington **Energy Advantage™** Low-e (coating on #4 surface) inner lite[9]																
	3/32	2.5	72	18	19	60	17	47	0.25	0.22	0.26	0.23	1.6	1.4	0.66	0.76
	1/8	3	72	18	19	58	17	46	0.25	0.22	0.26	0.23	1.6	1.3	0.65	0.75
	5/32	4	71	18	19	57	17	44	0.25	0.22	0.26	0.23	1.6	1.3	0.64	0.74
	3/16	5	69	18	19	49	15	33	0.24	0.21	0.26	0.23	1.6	1.3	0.59	0.68
	1/4	6	68	17	18	47	14	29	0.24	0.21	0.26	0.23	1.5	1.3	0.58	0.66
	5/16	8	66	17	18	42	13	26	0.24	0.21	0.26	0.23	1.5	1.3	0.54	0.62
	3/8	10	64	16	17	38	12	23	0.24	0.21	0.26	0.22	1.5	1.3	0.51	0.59
	1/2	12	63	16	18	36	11	24	0.24	0.21	0.26	0.23	1.5	1.3	0.49	0.57

An insulating unit consists of two lites of equal glass thickness, and a 1/2 in. (12.7 mm) airspace.

*U.S. U-Factor (Btu/hr.sq ft. °F) is based on NFRC/ASTM standards, **European U-Factor (W/sq m K) is based on EN 410/673 (CEN) standard.

All performance values are center-of-glass values calculated using the LBNL Window 6.3 program. See Pilkington Architectural Product Guide for explanation of references - [1, 10].

Coated Insulting Glass Unit Performance Data[1,10]

	Nominal Glass Thickness		Visible Light[2]			Solar Energy[2]			U-Factor[5]						Solar Heat Gain Coefficient[7]	Shading Coefficient[8]
				Reflectance[4] %					U.S. Summer*		U.S. Winter*		European[6]**			
	in.	mm	Transmittance[3] %	Outside	Inside	Transmittance[3] %	Reflectance[4] %	UV Transmittance[2] %	Air	Argon	Air	Argon	Air	Argon		
Pilkington **Solar-E™** outer lite (coating on #2 surface) and Pilkington **Optifloat™** Clear inner lite																
Clear	1/8	3	55	11	16	41	10	41	0.33	0.28	0.34	0.29	1.9	1.6	0.47	0.54
	5/32	4	55	10	16	40	9	39	0.33	0.28	0.34	0.29	1.9	1.6	0.46	0.53
	3/16	5	53	10	15	36	9	34	0.33	0.28	0.33	0.29	1.9	1.6	0.45	0.52
	1/4	6	53	10	15	34	9	31	0.33	0.28	0.33	0.29	1.8	1.5	0.43	0.50
	5/16	8	52	10	15	32	8	29	0.33	0.28	0.33	0.29	1.8	1.5	0.43	0.49
Pilkington **Solar-E™** Plus outer lite (coating on #2 surface) and Pilkington **Optifloat™** Clear inner lite																
Blue-Green	1/4	6	37	8	15	20	6	15	0.33	0.28	0.33	0.29	1.9	1.6	0.30	0.34
	5/16	8	34	7	15	17	6	12	0.33	0.28	0.33	0.29	1.8	1.5	0.27	0.31
EverGreen	1/4	6	34	8	15	15	6	7	0.33	0.28	0.33	0.29	1.9	1.6	0.24	0.28
	5/16	8	30	7	15	12	5	4	0.33	0.28	0.33	0.29	1.8	1.5	0.22	0.25
Graphite Blue	1/4	6	25	6	14	19	5	16	0.33	0.28	0.33	0.29	1.9	1.6	0.30	0.34
	5/16	8	26	7	15	18	6	14	0.33	0.28	0.33	0.29	1.8	1.5	0.28	0.33
Arctic Blue	1/4	6	27	6	14	14	5	9	0.33	0.28	0.33	0.29	1.9	1.6	0.24	0.27
	5/16	8	24	6	14	12	5	7	0.33	0.28	0.33	0.29	1.8	1.5	0.22	0.25
Grey	1/4	6	21	6	15	16	6	10	0.33	0.28	0.33	0.29	1.9	1.6	0.26	0.30
	5/16	8	17	6	14	12	5	7	0.33	0.28	0.33	0.29	1.8	1.5	0.23	0.26
Pilkington **Solar-E™** (coating on #2 surface) outer lite and Pilkington **Energy Advantage™** Low-e (coating on the #4 surface) inner lite[9]																
Clear	1/4	6	49	11	17	32	9	26	0.24	0.22	0.26	0.23	1.6	1.3	0.41	0.47
	5/16	8	48	11	17	29	9	23	0.24	0.21	0.26	0.23	1.5	1.3	0.40	0.45
Pilkington **Solar-E™** Plus (coating on #2 surface) outer lite and Pilkington **Energy Advantage™** Low-e (coating on the #4 surface) inner lite[9]																
Blue-Green	1/4	6	34	8	17	18	6	12	0.25	0.22	0.26	0.23	1.6	1.3	0.27	0.31
	5/16	8	32	7	16	15	6	9	0.24	0.22	0.26	0.23	1.6	1.3	0.24	0.28
EverGreen	1/4	6	31	8	17	13	6	5	0.25	0.22	0.26	0.23	1.6	1.3	0.22	0.25
	5/16	8	28	7	17	11	5	3	0.24	0.22	0.26	0.23	1.6	1.3	0.19	0.22
Graphite Blue	1/4	6	23	6	16	17	6	13	0.25	0.22	0.26	0.23	1.6	1.3	0.27	0.31
	5/16	8	25	7	16	16	6	11	0.24	0.22	0.26	0.23	1.6	1.3	0.26	0.29
Arctic Blue	1/4	6	25	6	16	13	5	7	0.25	0.22	0.26	0.23	1.6	1.3	0.21	0.25
	5/16	8	22	6	16	11	5	5	0.24	0.22	0.26	0.23	1.6	1.3	0.19	0.22
Grey	1/4	6	20	6	17	14	6	8	0.25	0.22	0.26	0.23	1.6	1.3	0.23	0.26
	5/16	8	16	6	16	11	5	5	0.24	0.22	0.26	0.23	1.6	1.3	0.20	0.23

An insulating unit consists of two lites of equal glass thickness, and a 1/2 in. (12.7 mm) airspace.

*U.S. U-Factor (Btu/hr.sq ft. °F) is based on NFRC/ASTM standards, **European U-Factor (W/sq m K) is based on EN 410/673 (CEN) standard.

All performance values are center-of-glass values calculated using the LBNL Window 6.3 program. See Pilkington Architectural Product Guide for explanation of references - [1, 10].

Coated Insulting Glass Unit Performance Data[1,10]

	Nominal Glass Thickness		Visible Light[2]			Solar Energy[2]			U-Factor[5]						Solar Heat Gain Coefficient[7]	Shading Coefficient[8]
			Transmittance[3] %	Reflectance[4] %		Transmittance[3] %	Reflectance[4] %	UV Transmittance[2] %	U.S. Summer*		U.S. Winter*		European[6]**			
	in.	mm		Outside	Inside				Air	Argon	Air	Argon	Air	Argon		
Pilkington **Eclipse Advantage™** (coating on #2 surface) outer lite and Pilkington **Optifloat™** Clear inner lite																
Clear	1/4	6	60	29	31	46	21	24	0.35	0.30	0.35	0.30	1.9	1.6	0.55	0.63
	5/16	8	58	29	30	42	20	21	0.34	0.30	0.34	0.30	1.9	1.6	0.53	0.60
Blue-Green	1/4	6	51	21	29	29	12	13	0.35	0.30	0.35	0.30	1.9	1.6	0.38	0.44
	5/16	8	47	19	29	24	10	10	0.34	0.30	0.34	0.30	1.9	1.6	0.34	0.39
EverGreen	1/4	6	43	17	30	20	9	6	0.35	0.30	0.35	0.30	1.9	1.6	0.29	0.33
	5/16	8	38	15	29	15	8	4	0.34	0.30	0.34	0.30	1.9	1.6	0.25	0.29
Arctic Blue	1/4	6	35	13	30	19	9	9	0.35	0.30	0.35	0.30	1.9	1.6	0.29	0.33
	5/16	8	29	11	29	14	7	6	0.34	0.30	0.34	0.30	1.9	1.6	0.25	0.28
Bronze	1/4	6	34	13	29	28	11	9	0.35	0.30	0.35	0.30	1.9	1.6	0.38	0.44
	5/16	8	28	10	28	21	9	6	0.34	0.30	0.34	0.30	1.9	1.6	0.33	0.38
Grey	1/4	6	29	10	29	23	9	8	0.35	0.30	0.35	0.30	1.9	1.6	0.34	0.39
	5/16	8	22	8	29	17	7	6	0.34	0.30	0.34	0.30	1.9	1.6	0.28	0.32
Pilkington **Eclipse Advantage™** (coating on #2 surface) outer lite and Pilkington **Energy Advantage™** Low-e (coating on #4 surface) inner lite[9]																
Clear	1/4	6	56	30	30	41	22	19	0.25	0.23	0.27	0.24	1.6	1.4	0.51	0.58
	5/16	8	55	29	30	37	20	17	0.25	0.23	0.27	0.24	1.6	1.4	0.48	0.55
Blue-Green	1/4	6	48	22	29	26	12	10	0.25	0.23	0.27	0.24	1.6	1.4	0.35	0.40
	5/16	8	44	20	29	21	11	8	0.25	0.23	0.27	0.24	1.6	1.4	0.30	0.35
EverGreen	1/4	6	40	18	30	18	9	5	0.25	0.23	0.27	0.24	1.6	1.4	0.26	0.30
	5/16	8	36	15	29	14	8	3	0.25	0.23	0.27	0.24	1.6	1.4	0.23	0.26
Arctic Blue	1/4	6	33	14	29	17	9	7	0.25	0.23	0.27	0.24	1.6	1.4	0.26	0.30
	5/16	8	27	11	29	13	7	5	0.25	0.23	0.27	0.24	1.6	1.4	0.22	0.25
Bronze	1/4	6	32	13	29	24	11	7	0.25	0.23	0.27	0.24	1.6	1.4	0.34	0.39
	5/16	8	26	10	28	19	9	5	0.25	0.23	0.27	0.24	1.6	1.4	0.29	0.33
Grey	1/4	6	27	11	29	20	9	7	0.25	0.23	0.27	0.24	1.6	1.4	0.30	0.35
	5/16	8	21	8	29	15	7	5	0.25	0.23	0.27	0.24	1.6	1.4	0.25	0.29

An insulating unit consists of two lites of equal glass thickness, and a 1/2 in. (12.7 mm) airspace.

*U.S. U-Factor (Btu/hr.sq ft. ºF) is based on NFRC/ASTM standards, **European U-Factor (W/sq m K) is based on EN 410/673 (CEN) standard.

All performance values are center-of-glass values calculated using the LBNL Window 6.3 program. See Pilkington Architectural Product Guide for explanation of references - [1, 10].

	Nominal Glass Thickness		Visible Light[2]			Solar Energy[2]			U-Factor[5]						Solar Heat Gain Coefficient[7]	Shading Coefficient[8]
			Transmittance[3]	Reflectance[4] %		Transmittance[3] %	Reflectance[4] %	UV Transmittance[2] %	U.S. Summer*		U.S. Winter*		Europe**			
	in.	mm		Outside	Inside				Air	Argon	Air	Argon	Air	Argon		
Pilkington **Eclipse™** (coating on #2 surface) outer lite and Pilkington **Optifloat™** Clear inner lite																
Gold	1/4	6	36	38	45	35	27	7	0.50	0.47	0.47	0.45	2.8	2.6	0.45	0.52
	5/16	8	36	35	42	31	24	5	0.49	0.47	0.47	0.44	2.8	2.6	0.43	0.49
Sunset Gold	1/4	6	22	16	44	24	13	3	0.50	0.47	0.47	0.45	2.8	2.6	0.36	0.42
Pilkington **Eclipse™** (coating on #2 surface) outer lite and Pilkington **Energy Advantage™** Low-e (coating on #3 surface) inner lite																
Gold	1/4	6	34	38	42	30	28	5	0.33	0.28	0.33	0.29	1.8	1.5	0.41	0.48
	5/16	8	34	36	40	26	26	4	0.33	0.28	0.33	0.28	1.8	1.5	0.39	0.45
Sunset Gold	1/4	6	21	16	41	19	14	2	0.33	0.28	0.33	0.29	1.8	1.5	0.31	0.36
Pilkington **Activ™** (coating on #1 surface) outer lite and Pilkington **Optifloat™** Clear inner lite																
Clear	1/8	3	77	21	20	71	17	43	0.51	0.48	0.48	0.45	2.8	2.7	0.74	0.86
	5/32	4	76	21	20	69	17	41	0.50	0.48	0.48	0.45	2.8	2.7	0.73	0.84
	3/16	5	75	20	20	62	16	36	0.50	0.48	0.48	0.45	2.8	2.6	0.70	0.81
	1/4	6	74	21	20	59	16	34	0.50	0.47	0.47	0.45	2.8	2.6	0.68	0.78
Blue	1/4	6	44	16	15	26	12	11	0.50	0.47	0.47	0.45	2.8	2.6	0.38	0.43
Pilkington **Activ™** (coating on #1 surface) outer lite and Pilkington **Energy Advantage™** Low-e (coating on #3 surface) inner lite																
Clear	1/8	3	72	23	21	60	20	36	0.33	0.28	0.34	0.29	1.9	1.6	0.69	0.80
	5/32	4	71	23	21	58	20	34	0.33	0.28	0.34	0.29	1.9	1.5	0.68	0.78
	3/16	5	70	23	21	53	19	30	0.33	0.28	0.33	0.29	1.8	1.5	0.66	0.76
	1/4	6	69	23	20	51	19	27	0.33	0.28	0.33	0.29	1.8	1.5	0.64	0.74
Blue	1/4	6	40	17	16	22	12	9	0.33	0.28	0.33	0.29	1.8	1.5	0.33	0.38
Pilkington **Activ™** (coating on #1 surface) outer lite and Pilkington **Solar-E™** (coating on #3 surface) inner lite																
Clear	1/8	3	51	21	13	37	20	27	0.33	0.28	0.34	0.29	1.9	1.6	0.64	0.74
	5/32	4	51	21	13	36	20	26	0.33	0.28	0.34	0.29	1.9	1.6	0.63	0.73
	3/16	5	50	21	13	35	19	25	0.33	0.28	0.33	0.29	1.9	1.6	0.62	0.71
	1/4	6	50	21	13	34	19	24	0.33	0.28	0.33	0.29	1.8	1.5	0.60	0.69

An insulating unit consists of two lites of equal glass thickness, and a 1/2 in. (12.7 mm) airspace.

*U.S. U-Factor (Btu/hr.sq ft. °F) is based on NFRC/ASTM standards, **European U-Factor (W/sq m K) is based on EN 410/673 (CEN) standard.

All performance values are center-of-glass values calculated using the LBNL Window 6.3 program. See Pilkington Architectural Product Guide for explanation of references - [1, 10].

NSG **TEC**™ Performance Data

Product	Thickness (mm)	Visible Light Transmittance (%)	Sheet Resistance (Ohms/sq.)	Haze (%)	Hemispherical Emmitance
NSG **TEC**™ Product Properties					
NSG **TEC**™ 7	2.2, 3.0, 3.2	80-81.5	6-8	3	0.12
NSG **TEC**™ 8	2.2, 3.2	82-83	6-9	12	0.12
NSG **TEC**™ 10	2.2, 3.2	83-84.5	9-11	≤0.35	0.14
NSG **TEC**™ 15	1.6, 1.8, 2.2, 3.0, 3.2, 4.0	83-84.5	12-14	≤0.35	0.15
	5.0, 6.0, 8.0, 10.0	82-83	12-14	≤0.45	0.15
NSG **TEC**™ 20	4.0	80-85	19-25	≤0.80	0.22
NSG **TEC**™ 35	3.2, 6.0	82-84	32-48	≤0.65	0.34
NSG **TEC**™ 50	6.0	80-85	43-53	≤0.55	0.39
NSG **TEC**™ 70	3.2, 4.0	82-84	58-72	0.5	0.45
NSG **TEC**™ 100	3.2, 4.0	83-84	125-145	0.5	0.60
NSG **TEC**™ 250	3.2, 4.0	84-85	260-325	0.7	0.67
NSG **TEC**™ 1000	3.2	88	1000-3000	0.5	0.84

Notes: Nominal values shown. Specifications subject to change. Substrate = Clear soda lime glass.

Glazing (Room/Cool Side)	Airspaces (Number)	U-Value (W/M^2K)	Room-Side Glass Temp. (C)	Condensation RH** (%)	RH Improvement (%)	Heat Flow Through Glass (W/m^2)	Heat Flow Reduction (%)	Power Density (W/m^2)
NSG **TEC**™ Refrigerator Door Applications*								
Clear/Clear	1	2.4	20	64	Base Case	54	Base Case	0
Triple Clear***	2	2.0	21	69	8	45	17	0
NSG **TEC**™ 15/Clear	1	1.7	22	73	14	38	30	0

* Room-side temperature = 27°C, refrigeration temperature = 4°C.
*** No power.

Glazing (Room/Cool Side)	Airspaces (Number)	U-Value (W/M^2K)	Room-Side Glass Temp. (C)	Condensation RH** (%)	RH Improvement (%)	Heat Flow Through Glass (W/m^2)	Heat Flow Reduction (%)	Power Density (W/m^2)
NSG **TEC**™ Freezer Door Applications*								
Triple Clear***	2	1.9	15	48	Base Case	87	Base Case	0
NSG **TEC**™ 70/Clear/Clear	2	1.7	24	81	70	82	6	82
NSG **TEC**™ 70/NSG **TEC**™ 15	1	1.6	25	87	82	75	14	82
NSG **TEC**™ 70/NSG **TEC**™ 15/clear	2	1.5	25	90	88	73	17	82

* Room-side temperature = 27°C, freezer temperature = −20°C.
** Condensation along the room-side glass surface away from the frame when the relative humidity (RH) within the room is greater than the value noted.
Notes: All glass 3.2mm; Airspace 12mm for doubles, 6mm for triples; Airspace filled with air; All simulations utilizing LBL Windows 5.2; Demist heater power of 100 Watts (82 W/m^2); Input voltage = 120 volts; Units 800mm × 1,700mm, bus bars along 800mm dimensions.

Performance Data Notes

1. Some combinations or installations may require heating treating to prevent glass breakage from thermal stress.

2. Visible, Solar and UV data are based on laboratory spectrophotometric measurements weighted by an appropriate weighting function(s) using LBNL Windows 6.3 Software. Wave length ranges of the sun's energy used to calculate properties: Visible from 0.38 to 0.78 microns, Solar from 0.30 to 2.5 microns and UV from 3.0 to 0.38 microns.

3. Transmittance - Percentage of normally incident visible light or solar energy passing directly through the glazing.

4. Reflectance - Percentage of normally incident visible light or solar energy reflected away from the glazing.

5. U-Factor (Btu/hr.sq ft. °F) - Measure of the heat gain or loss through glazing due to environmental differences between the outdoor and indoor air. U-Factors given are center-of-glass values calculated using LBNL Windows 6.3. To NFRC standard 100-2001. Winter U-Factors are based on an outdoor temperature of 0°F (-18°C), an indoor temperature of 70°F (21°C) and a 12.3 mph (5.5m/s) wind velocity with no sun. Summer U-Factors are based on an outdoor temperature of 90°F (32°C), and indoor temperature of 75°F (24°C), a solar intensity of 248 Btu/hr.sq ft. °F. (783 W/sqm) and a 6.3mph (2.8m/s) wind. To obtain metric U-Factor (W/sq m. °C), multiply by 5.678. "U-Factor" is identical to the previously known term of "U-Value".

6. European U-Factor (W/sq m.K) is based on EN 410/673 (CEN) standard.

7. Solar Heat Gain Coefficient or SHGC - The ratio of the total solar heat gain through the glass relative to the incident solar radiation. The solar heat gain includes both the solar energy directly transmitted through the glass, plus the solar energy absorbed by the glass and subsequently convected and thermally radiated inward.

8. Shading Coefficient or SC - The ratio of solar heat gain through the glass relative to that through 1/8" (3mm) clear glass at nominal incidence. Note that Relative Heat Gain or RHG (Btu/hr.sq ft), which is the amount of heat gained through the glass at assumed summer conditions, can be calculated using the following equation: RHG = SC x 200 + Us x 14. To obtain metric RHG (W/sq m), multiply by 3.154.

9. A low-e coating on the exposed interior surface may increase the possibility of condensation formation during winter conditions.

10. Typical values of Pilkington production are provided.

Design and Uniform Static Loads
ASTM Standard Practice E 1300 contains design load evaluation procedures for different glass thickness and failure probabilities. For a copy of this standard visit www.ASTM.org or write to:

ASTM
100 Bar Harbor Drive
West Conshohocken, PA 19428

For design and comprehensive technical data, please visit the Pilkington Web site:

www.pilkington.com/na

Technical Bulletins

ATS 129
Properties

ATS 171
Optics and Window 5 Procedures

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