Glazing Tech Data 7/2022

	June 2012 NYC DOB Energy Figures:	min 2.0	0.55 max			0.40 max	0.45 max		
		A	B	C	D	E	F	G	H
	Roof Glazing Options	R-Value	U-Value	Weight In Pounds Per Square Foot	% Light Transmission	Solar Heat Gain Coefficient	Shading Coeefficient	Sound Transmission Class	Sound Transmission Class
1	10mm Clear Tint Multiwall Polycarbonate	1.79	0.56	0.41	75%	0.76	0.90	21	19db
2	10mm Bronze Tint Multiwall Polycarbonate	1.89	0.53	0.41	40%	0.68	0.72	21	19db
3	10mm Grey Tint Multiwall Polycarbonate	1.89	0.53	0.41	30%	0.55	0.64	21	19db
4	10mm Opal Multiwall Polycarbonate	1.89	0.53	0.41	55%	0.28	0.45	21	19db
5	Dual 10mm Clear Tinted over Clear Multiwall Polycarbonate	3.57	0.28	0.70	55%	0.59	0.70		
6	Dual 10mm Bronze Tinted over Clear Multiwall Polycarbonate	3.57	0.28	0.70	20%	0.38	0.43		
7	Dual 10mm Grey Tinted over Clear Multiwall Polycarbonate	3.57	0.28	0.70	20%	0.35	0.40		
8	Dual 10mm Opal Tinted over Clear Multiwall Polycarbonate	3.57	0.28	0.70	20%	0.22	0.28		
9	3/8" Clear Monolithic Polycarbonate with UV Inhibitor on the Exterior Side		0.79		0.20%	0.84			
	Wall Glazing Options								
10	1/4" Clear Tempered Single Pane Glass	0.94	1.04	3.02	90%	0.86	0.94	32	26db
11	1/4" Grey Tint Tempered Single Pane Glass	0.94	1.04	3.02	68%	0.73	0.93	31	26db
12	3/8" Laminated Glass	1.11	0.98	4.91	86%	0.78	0.90		
13	3/8" Laminated Low E Glass	1.11	0.65	4.91	79%	0.65	0.76	36	
14	7/8" Insulated / Clear / Tempered / Low E Glass Unit	2.04	0.48	4.90	80%	0.76	0.87		
15	7/8" Clear / Low E / Laminated / Insulated Glass Unit	2.04	0.47	5.73	79%	0.74	0.85		
16	7/8" Clear Solarban60 Low E Insulated Glass Unit	3.45	0.29	4.90	70%	0.38	0.43		
17	7/8" Clear Solarban60 Low E Laminated Insulated Glass Unit	3.45	0.29	4.90	70%	0.38	0.43		
18	7/8" Bronze Solarban60 Low E Insulated Glass Unit	3.45	0.29	4.90	42%	0.36	0.41		
19	7/8" Bronze Solarban60 Low E Laminated Insulated Glass Unit	3.45	0.29	4.90	42%	0.27	0.31		
20	7/8" Gray Solarban60 Low E Insulated Glass Unit	3.45	0.29	4.90	35%	0.35	0.41		
21	7/8" Gray Solarban60 Low E Laminated Insulated Glass Unit	3.45	0.29	4.90	35%	0.24	0.28		
22	1/4" Alumalite	1.75		0.78	0%	N/A	N/A		
23	1" Thermolite	7.00		1.40	0%	N/A	N/A		
	June 2012 NYC DOB:	min 2.0	0.55 max			0.40 max	0.45 max		

Thermal Properties Monolithic Sheet:

THERMAL			
Coefficient of Thermal Expansion	ASTM D 696	in/in/°F	3.75×10^{-5}
Coefficient of Thermal Conductivity	ASTM C 177	BTU-in/hr-ft²-°F	1.35
Heat Deflection Temperature @ 264 psi	ASTM D 648	°F	270
Heat Deflection Temperature @ 66 psi	ASTM D 648	°F	280
Brittleness Temperature from ductile to brittle	ASTM D 746	°F	-40 - -200
Shading Coefficient, clear @ 0.236"	NFRC 100-2010	-	0.97
Shading Coefficient, Gray or Bronze @ 0.236"	NFRC 100-2010	-	0.77
U factor @ 0.236" (summer, winter)	NFRC 100-2010	BTU/hr-ft²-°F	0.85, 0.92
U factor @ 0.375" (summer, winter)	NFRC 100-2010	BTU/hr-ft²-°F	0.78, 0.85

Definition of termonology:

A) R-Value - The overall resistance to heat transfer.

B) U-Value - The amount of conductive heat energy (BTU's) transferred through a one-square-foot area of a specific insulating glass unit for each degree Fahrenheit temperature difference between the indoor and outdoor air. It is the inverse of the R-value; U=1/R.

C) Weight In Pounds Per Square Foot - Actual weight per square foot of glazing material only.

D) % Light Transmission - Percentage of visable light able to pass through the glazing.

E) Solar Heat Gain Coefficient - Ratio of total sloar heat energy transmitted .

F) Shading Coefficient - The amount of the sun's heat transmitted through a given window compared with that of a standard 1/8-inch-thick single pane of glass under the same conditions.

G) Sound Transmission Class - A single-number rating of a material's ability to resist airbourne sound transfer at frequencies 125-4000 Hz.

H) db Sound Reduction - Amount of sound reduced from transmitting through the glazing measured in decibels.