

Glazing Performance Comparison Chart

Description		A	B	C	D	E	F	G	H	I
		R-Value	U-Value	Weight In Pounds Per Square Foot	% Light Transmission	Solar Heat Gain Coefficient	Shading Coefficient	Sound Transmission Class	% Perceived Sound Reduction	db Sound Reduction
Glazing Type / Standard										
walls	1/4" Clear Tempered Single Pane Glass	0.94	1.04	3.02	90%	0.86	0.99	32	125%	26db
walls	1/4" Clear Polycarbonate	1.11	0.90	1.45	83%					
roof	10mm Clear Multiwall	2.10	0.48	0.41	75%	0.76	0.90	21	5%	19db
Glazing Type / Optional										
walls	1/4" Clear Tempered Single Pane Low E Glass	1.03		3.02		0.35		31	25%	26db
walls	1/4" Bronze Tint Tempered Single Pane Glass	0.94	1.04	3.02	68%	0.73	0.84	31	25%	26db
walls	1/4" Grey Tint Tempered Single Pane Glass	0.94	1.04	3.02	68%	0.73	0/79	31	25%	26db
walls	1/4" Clear Polycarbonate	1.11	0.90	1.45	83%					
walls	1/4" Bronze Polycarbonate	1.11	0.90	1.45	50%					
roof	3/8" laminated Glass	1.11	0.90	1.45	50%			36	50%	
roof	10mm Bronze Tint Multiwall Polycarbonate	2.10	0.48	0.41	40%	0.68	0.72	21	5%	19db
roof	10mm Grey Tint Multiwall Polycarbonate	2.10	0.48	0.41	30%	0.55	0.64	21	5%	19db
roof	10mm Opal Multiwall Polycarbonate	2.10	0.48	0.41	55%	0.27	0.68	21	5%	19db
	1/4" Alupalite			0.78	0%	N/A	N/A			
	1" Thermolite	7.00		1.40	0%	N/A	N/A			
Glazing Type / Others For Comparison										
walls	1/2" Clear Insulated Glass Unit	1.69	0.47		79%	0.70	0.81	28		
walls	5/8" Clear Insulated Glass Unit	2.04	0.47		79%	0.70	0.81	31		
walls	3/4" Clear Insulated Glass Unit	2.38	0.47		79%	0.70	0.81	35		
walls	3/4" Clear Insulated Glass Unit w/ low E	3.13	0.32			0.74	0.86			
walls	7/8" Clear Insulated Glass Unit w/ low E	3.50	0.28			0.75	0.88			

Definition of terminology:

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 visible light able to pass through the glazing.

E) Solar Heat Gain Coefficient - Ratio of total solar 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) % Perceived Sound Reduction - Acoustic sound transmission that is perceived to be reduced.

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