



Acrylic & Glass Comparison

MATERIAL	TYPE	THICKNESS	← COLOR (Standard Colors Bold)								Tensile Strength (MPa)	Tensile Modulus of Elasticity (K)	Flexural Strength (K)	Izod Impact Strength – Molded Notch	Rockwell Hardness (M)	Deflection Temperature 264 psi (1.8 MPa)	Visible Reflectance % (Out)	UV Transmittance (%) ¹
				ASTM (D)→	Light Transmission (%)	Solar Energy Transmission (%)	Shading Coefficient	Solar Heat Gain Coefficient	Sound Reduction (dB)	U-Factors in BTU/(hour)(sq.ft.)(°F)								
ACRYLIC	STANDARD	0.118"	Clear	1003	92	89	.98	.85	22	.98	1.19	638	638	790	256	785	648	100
			2447 White		49	63	.74	.64	22	.98	1.19	400	17	.4	93			0
			7328 White		30	34	.43	.37	22	.98	1.19	400	17		93			0
			2412 Bronze		27	35	.61	.53	22	.98	1.19	400	17		93			100
			2370 Bronze		10	20	.45	.35	22	.98	1.19	400	17		93			100
			2064 Gray		25	42	.72	.63	22	.98	1.19	400	17		93			100
			Clear over Clear		85	79	.96	.72	22	.98	1.19	400	17		93			100
			2447 White over Clear		45	56	.73	.54	25	.68	1.19	400	17		93			0
			7328 White over Clear		23	30	.42	.37	25	.68	1.19	400	17		93			0
			2447 White over 2412 Bronze		13	22	.45	.34	25	.68	1.19	400	17		93			0
			2447 White over 2447 White		24	40	.55	.41	25	.68	1.19	400	17		93			0
			2447 White over 2064 Gray		12	26	.53	.40	25	.68	1.19	400	17		93			0
			2412 Bronze over Clear		25	31	.60	.45	25	.68	1.19	400	17		93			100
			2370 Bronze over Clear		9	18	.44	.30	25	.68	1.19	400	17		93			100
			2064 Gray over Clear		23	37	.71	.54	25	.68	1.19	400	17		93			100
	*	0.177"	2447 White		37	47	.56	.48	25	.94								0
			7328 White		21	24	.30	.26	25	.94								0
			2447 White over Clear		34	42	.55	.41	28	.64								0
			7328 White over Clear		19	21	.29	.22	28	.64								0
	DR ²	0.177"	30% Clear (Single)		92	See Single 0.187" Colors 2412 Bronze, 2447 White or Clear		28	.68	1.18	9	376	13.7	.6	78	198	Dependent on Color	
			50% Clear (Single)		92		28	.68	1.17	8	340	12	.7	69	194			
			70% Clear (Single)		90		28	.68	1.16	7.1	304	10.6	.9	59	190			
			100% Clear (Single)		90		28	.68	1.15	5.6	250	8.3	1.1	46	185			
			30% (Double)		36	See 0.177 Double Colors		31	.68	1.18	9	376	13.7	.6	78	198		
			50% (Double)		36		31	.68	1.17	8	340	12	.7	69	194			
			70% (Double)		34		31	.68	1.16	7.1	304	10.6	.9	59	190			
			100% (Double)		34		31	.68	1.15	5.6	250	8.3	1.1	46	185			
	PREMIUM Insulated Glass (≅1.125" Thick)	Bronze		40	15	.31	.20		.22 ³								8	<1
Gray			32	12	.33	.18		.22 ³								7	<1	
Clear			60	22	.44	.27		.22 ³								11	<1	
NBE Insulated Glass (≅1" Thick)	Bronze		42	32	.52	.45		.33								8	14	
	Gray		36	27	.46	.40		.33								7	13	
	Clear		73	52	.77	.67		.33								17	37	
Tempered Laminate Glass (≅0.500" Thick)	Bronze		36	14	.41	.36		.93 ⁵								13	<1	
	Gray		30	12	.41	.36		.93 ⁵								13	<1	
	Clear		60	23	.36	.32		.93 ⁵								16	<1	

*Commercial Duty ¹ 100% UV transmission can be paired with a UV clear which will block the UV (not available with the DR options)
² Damage Resistant ³ Winter .23 / Summer .20 ⁴ Glass can be made thinner by decreasing the argon-filled airspace and/or
 decreasing the individual glass thickness. Some sizes require thicker ⁵ Winter .97 / Summer .88

ALL GLASS IS TEMPERED / LOE COATED BUT THE PREMIUM HAS THREE PIECES OF GLASS WITH AN ARGON-FILLED AIR SPACE BETWEEN THE 1ST AND 2ND LAYER WHEREAS AND IS LAMINATED ON THE INSIDE. THE NBE IS NOT LAMINATED AND HAS AIR IN THE SPACE INSTEAD OF ARGON. THE TEMPERED / LAMINATED HAS TWO PIECES WITHOUT AN AIRSPACE.