

Physical Properties of Beauty Glass and HHC High Impact Sheet

壓克力板及耐衝擊板物理特性

The following physical properties were determined by using 3mm thickness of Clear Beauty Glass and 4mm thickness of HHC High Impact.

Properties	ASTM	Unit	Beauty Glass	High Impact
Specific Gravity	D 792-60 T		1.19	1.19
Optical				
Refractive Index	D 542-50		1.49	1.49
Light Transmittance	D 1003-61			
Parallel		%	92	92
Total		%	93	93
Haze		%	1	1
Mechanical				
Tensile Strength	D 638-61 T			
Rupture		kg/cm ²	758	520
Modulus of Elasticity		kg/cm ²	3×10 ⁴	2.56×10 ⁴
Elongation at Rupture		%	4.5	4.5
Flexural Strength	D 790-63			
Rupture		kg/cm ²	1,265	949
Modulus of Elasticity		kg/cm ²	3×10 ⁴	2.67×10 ⁴
Compressive Strength	D 695-63 T			
Yield		kg/cm ²	1,260	
Modulus of Elasticity		kg/cm ²	3×10 ⁴	
Shear Strength	D 732-46	kg/cm ²	625	612
Impact Strength	D 256-56			
Falling Ball Impact		kg/cm ²	0.8	
Falling Dart Impact		N·M		21.693
Rockwell Hardness	D 785-62		M 100	
Thermal				
Hot Forming Temperature		°C	140~180	160-198
Heat Distortion Temperature				
2° C/Min - 264 p. s. i.	D 648-56	°C	100	82.2
Coefficient of Thermal Expansion	D 696-44	cm/cm/°C	7×10 ⁻⁵	7.56×10 ⁻⁵
Specific Heat		Cal/gr °C	0.35	
Electrical				
Surface Resistivity 28° C, 75%RH		ohm	>10 ¹⁶	
Volume Resistivity	D 257-61	ohm cm	>15 ¹⁵	
Dielectric Strength				
Short Time Test	D 149-64	kv/mm	20	
Arc Resistance	D 495-61		No Track	
Miscellaneous				
Flammability (Burning Rate)	D 635-63	mm/min	33	54
Water Absorption (Wt. Gain on				
Immersion for 24hrs)	D570-63	%	0.3	0.3
Soluble Matter Lost after Immersion		%	0.0	0.0
Odor			None	None
Taste			None	None