

Product Data - G-Cast Acrylic



TYPICAL PROPERTIES*

Property	Test Method	Units	Values
PHYSICAL			
Specific Gravity	ASTM D792	–	1.19
Light Transmission - Total	ASTM D1003	%	92
Light Transmission - Haze	ASTM D1003	%	<2.0
Optical Refractive Index	ASTM D542	–	1.49
Water Absorption	ASTM D570	%	0.2
Poisson's Ratio	-	-	0.35
MECHANICAL			
Tensile Strength	ASTM D638	psi	10,500
Tensile Elongation	ASTM D638	%	4.9
Tensile Modulus of Elasticity	ASTM D638	psi	450,000
Flexural Strength	ASTM D790	psi	16,000
Flexural Modulus of Elasticity	ASTM D790	psi	450,000
Impact Strength			
Izod - Notched	ASTM D256	ft-lb/in	0.3
Charpy - Unnotched	ASTM D256	ft-lb/0.5" x 1" section	7.0
Rockwell Hardness	ASTM D785	M scale	100
THERMAL			
Deflection Temperature @264 psi	ASTM D648	°F	205
Coefficient of Thermal Expansion	ASTM E831	in/in/°F	3.9 x 10 ⁻⁵
Thermal Conductivity	ASTM C177	BTU-ft/ft ² /hr/°F	0.11
U-Value (Summer gain, winter loss)	-	BTU/hr/ ft ² /°F	0.89, 0.96
Specific Heat Capacity @ 77°F	-	BTU/lb/°F	0.35
Max Recommended Continuous Service Temp	-	°F	180-200
Thermoforming Temperature	-	°F	290-360
Flammability (Burning Rate)	ASTM D635	in/min	<1.0
Smoke Density	ASTM D2843	%	1.0
Self-Ignition Temperature	ASTM D1929	°F	860
Flame Spread Index	CAN/ULC-S102.2	-	135
Smoke Developed Index	CAN/ULC-S102.2	-	>500
Flammability	UL 94,UL746C	-	HB(f1)

*Typical properties are not intended for specification purposes

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