



ADVANCED MATERIALS

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## Cast Acrylic Properties

Physical Properties	ASTM Test Method	Units	Values
Specific Gravity	D-792	g/cm <sup>3</sup>	1.20
Water Absorption	D-570	% by wt	0.30
Optical Properties	ASTM Test Method	Units	Values
Optical Refractive Index	D-542		1.49
Light Transmission-Total	D-1003	%	92
Mechanical Properties	ASTM Test Method	Units	Values
Tensile Strength - Max.	D-638	psi	11,030
Tensile Elongation - Max.	D-638	%	5.8
Tensile Modulus of Elasticity	D-638	psi	490,000
Flexural Strength - Max.	D-790	psi	17,000
Flexural Modulus of Elasticity	D-790	psi	490,000
Rockwell Hardness	D-785		M-100
Thermal Properties	ASTM Test Method	Units	Values
Maximum Recommended Continuous Service		°F	170-190
Softening Point		°F	210-220
Melting Temperature		°F	300-315
Thermal Conductivity	C-177	BTU-ft/(hr-ft <sup>2</sup> -°F)	0.078
Flammability (Burning Rate)	D-635	In/minute	1.019
Self-Ignition Temperature	D-1929	°F	833

These suggestions and data are based on information we believe to be reliable. They are offered in good faith, but without guarantee, as conditions and methods of use are beyond our control. We recommend that the prospective user determine the suitability of our materials and suggestions before adopting them on a commercial scale.