



Average Physical Properties of R-Cast® Material

Physical Property	Test Criteria	English Units	SI Units	Physical Property	Test Criteria	English Units	SI Units
Mechanical	ASTM			Thermal			
Specific Gravity	D-792	1.19	1.19	Thermal Expansion			
Tensile Strength				-22° F to 60° F	D-696	3.0(in/in°Fx10-5)	54(mM/MM°C)
(a)Ultimate Strength	D-638	10,500 PSI	72.4 Mpa	-22°F to 80°F	D-696	3.2(in/in°Fx10-5)	57.6(mM/MM°C)
(b) Elongation at Break	D-638	4.0%	4.0%	-22°F to 100°F	D-696	3.7(in/in°Fx10-5)	57.6(mM/MM°C)
(c)Modulus of Elasticity	D-638	480,000 PSI	3.01Gpa	Deflection Temp of Plastics Under Flexure	D-648	210°F	99°C
Ultimate Flexure Strength	D-790	16,000 PSI	110.3 MPa	Optical Properties			
Compressive Yield Strength	D-695	17,500 PSI	120.7 MPa	Refractive Index	D-542	1.49	1.49
Compressive Modulus	D-695	480,000 PSI	3.01 GPa	U.V. Light Transmittance (290-330nm)	E-308	1%	1%
Compressive deformation under load (4,000 Lbs/in-122°F-24 hrs)	D-621	0.45%	0.45%	Luminous Transmittance	D-1003	91.0%	91.0%
Shear, Ultimate Strength	D-732	10,000 PSI	68.9 Mpa	Visual Clarity	D-702	Passed	Passed
IZOD Impact Strength	D-256	.32 FT lb/in	17.1J/m	Other R-Cast® material is cross-linked and UVA stabilized unless otherwise requested			
Rockwell "M" Hardness	D-785	103 "M"	103 "M"				
Water Absorption (24 hr)	D-570	0.11%	0.11%				