

# Trupoly UV2 Polycarbonate



## Typical Properties

Property	Test Method	Units	Values
<b>PHYSICAL</b>			
Density	ASTM D 1505	g/cm <sup>3</sup>	1.2
Water absorption	ASTM D 570	%	0.15
<b>MECHANICAL</b>			
Tensile strength at yield	ASTM D 638	MPa	62
Tensile strength at break	ASTM D 638	MPa	65
Elongation at yield	ASTM D 638	%	6
Elongation at break	ASTM D 638	%	110
Tensile modulus of elasticity	ASTM D 638	MPa	2,378
Flexural modulus	ASTM D 790	MPa	702,378
Flexural strength at yield	ASTM D 790	MPa	93
Notched Izod impact strength	ASTM D 256	J/m (ft-lbf/in)	800 (15)
Notched Charpy impact strength	ASTM D 256	J/m (ft-lbf/in)	800 (15)
Impact falling weight	ISO 6603/1b	J (ft-lbf)	158 (117)
Rockwell hardness	ASTM D 785	R scale / M scale	125/70
Compressive strength	ASTM D 695	MPa	86
Compressive modulus	ASTM D 695	MPa	2378
Shear strength at yield	ASTM D 732	MPa	41
Shear strength at break	ASTM D 732	MPa	68
Shear modulus	ASTM D 732	MPa	786
<b>THERMAL</b>			
Long term service temp		°C (°F)	-75 to +100 (-175 to +212)
Short term service temp		°C (°F)	-75 to +120 (-175 to +250)
Heat deflection temp	ASTM D 648	°C (°F)	132 (270)
Vicat softening temperature	ASTM D 1525	°C (°F)	150 (300)
Coefficient of linear thermal expansion	ASTM D 696	10 <sup>-5</sup> /°C (10 <sup>-5</sup> /°F)	6.5 (3.6)
Thermal conductivity	ASTM C 177	W/m <sup>2</sup> K (Btu-in./hr-ft <sup>2</sup> -°F)	0.21 (1.46)
Specific heat capacity	ASTM C 351	kJ/kg <sup>2</sup> K (Btu/lb <sup>2</sup> F)	1.26 (0.31)
<b>OPTICAL</b>			
Haze	ASTM D 1003	%	<0.5
Light transmission	ASTM D 1003	%	89
Refractive index	ASTM D 542		1.59
Yellowness index	ASTM D 1925		<1

# Trupoly UV2 Polycarbonate



## ELECTRICAL

Dielectric constant 50 Hz	ASTM D 150		3
1 MHz	ASTM D 150		2.9
Dissipation factor 50 Hz	ASTM D 150		0.9
1 MHz	ASTM D 150		11
Dielectric strength short time	ASTM D 149	kV/mm (V/mil)	>30 (>770)
Surface resistance	ASTM D 257	Ohm	5.1x10 <sup>15</sup>
Volume resistance	ASTM D 257	Ohm-cm	1.3x10 <sup>17</sup>

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 determines the suitability of our materials and suggestions before adopting them on a commercial scale.