

## Polycarbonate

Property	Test Method	Conditions	Units	Value
<b>Physical</b>				
Relative Density	ASTM D-792		g/cm <sup>3</sup>	1.2
Water Absorption	ASTM D-570	24 hr @ 23°C	%	0.15
<b>Mechanical</b>				
Tensile Strength at yield	ASTM D-638	10mm/min	MPa	65
Tensile Strength at break	ASTM D-638	10mm/min	MPa	60
Elongation at yield	ASTM D-638	10mm/min	%	6
Elongation at break	ASTM D-638	10mm/min	%	>90
Tensile Modulus of Elasticity	ASTM D-638	1mm/min	MPa	2,300
Flexural Modulus	ASTM D-790	1.3mm/min	MPa	2,600
Flexural Strength at yield	ASTM D-790	1.3mm/min	MPa	65
Izod Impact Strength	ASTM D-256	notched	J/m	800
Charpy Impact Strength	ASTM D-256	notched	J/m	800
Impact Falling Weight	ISO 6603	3mm sheet	J	158
Rockwell Hardness	ASTM D-785		R Scale	125
<b>Thermal</b>				
Service Temperature			°C	-50 to + 100
Heat Distortion Temperature	ASTM D-648	Load: 1.82MP	°C	130
Vicat Softening Temperature	ASTM D-1525	Load: 1kg	°C	150
Coefficient of Thermal Expansion	ASTM D-696		mm/m°C	0.065
Thermal Conductivity	C-177		W/m°C	0.21
Specific Heat Capacity	C-351		kJ/kg°C	1.26
<b>Optical (Clear only)</b>				
Light Transmission	ASTM D-1003		%	89
Refractive Index	ASTM D-542			1.586
Yellowness Index	ASTM D-1925			<1
Haze	ASTM D-1003		%	<0.5
<b>Electrical</b>				
Dielectric Strength	ASTM D-149	500V/s	kV/mm	>30
Surface Resistivity	ASTM D-257	Keithley	Ω	5.1x10 <sup>15</sup>

Other physical properties and values available on request.

## Flammability:

Standard	Classification
BS 476 Part 7	Class 1
UL Classified	V2 (File e221255)
NSP 92501,4	M1, M2
DIN 4102	B1, B2
CSE RF 2/75/A CSE RF 3/77	Class 1
ASTM D-635	CC1

## FR Grade:

Standard	Classification
UL Classified	VO (File e221255)
ASTM D-2863-87	L.O.I=30
AU 1530.3-1982	Ignitability index =9
	Spread of flame index=8
	Heat evolved index=10
	Smoke developed index=8