POLYCARBONATE

ENGINEERING & HIGH PERFORMANCE PLASTICS SPECIALISTS

PROPERTIES	VALUE	UNIT	TEST METHOD
GENERAL			
Density	1.2	g/cm^3	ISO 1183-1:2019 Method A
Water Absorption	0.2	%	ISO 62:2008
MECHANICAL			
Tensile Strength	60	MPa	ISO 527-2:2012
Tensile Strain at Break	80	%	ISO 527-2:2012
Tensile Modulus	2300	MPa	ISO 527-2:2012
Flexural Strength	90	MPa	ISO 178:2019 Method A,B
Flexural Modulus	2300	MPa	ISO 178:2019 Method A,B
Charpy Impact Strength, Notched	40	kJ/m^2	ISO 179-1:2010
Izod Impact Strength, Notched	70	kJ/m^2	ISO 180:2000+Amd.2:2013
Rockwell Hardness, L-scale	100		ASTM D785
Rockwell Hardness, M-scale	N/A		ASTM D785
Rockwell Hardness, R-scale	N/A		ASTM D785
THERMAL			
Vicat Softening Temperature	135	° C	ISO 306:2013
Heat Deflection Temperature, 1.82MPa	125	° C	DIN53752
Coefficient of Linear Thermal Expansion	7	m/m.K x 10^{-5}	DIN53752
Self Ignition Temperature	550	° C	ASTM D 1929
Flash Ignition Temperature	480	° C	ASTM D 1929
Glow Wire Ignition Temperature (3 mm)	900	° C	IEC 60695-2-13
Burning Behaviour, Vertical	N/A		UL 94-2013/ Rev.9-2018 Section 8
Burning Behaviour, Horizontal (1.5 mm)	HB		UL 94-2013/ Rev.9-2018 Section 7
Continuous Service Temperature	110	° C	
Short Term Service Maximum Temperature	120	° C	
Moulding Range	200-260	° C	
OPTICAL			
Light Transmission Clear (3mm)	88	° C	520nm
Light Transmission Grey (3mm)	22	° C	520nm
Light Transmission Opal (3mm)	20	%	520nm
Refractive Index	1.59	n_p	DIN5036-3
Haze	<0.8	%	ISO 14782