

## Quantum Polysulfone

Category : Polymer , Thermoplastic , Polysulfone (PSU)

**Material Notes:**

Information provided by Quantum Advanced Engineering Plastics

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Quantum-Polysulfone.php](http://www.lookpolymers.com/polymer_Quantum-Polysulfone.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.24 g/cc	1.24 g/cc	ASTM D792
Water Absorption	0.30 %	0.30 %	ASTM D570
Water Absorption at Saturation	0.60 %	0.60 %	ASTM D570

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	69	69	ASTM D785
Hardness, Rockwell R	120	120	ASTM D785
Hardness, Shore D	80	80	ASTM 2240
Tensile Strength	70.3 MPa	10200 psi	ASTM D638
Elongation at Break	50 %	50 %	ASTM D638
Tensile Modulus	2.48 GPa	360 ksi	ASTM D638
Flexural Strength	106 MPa	15400 psi	ASTM D790
Flexural Modulus	2.69 GPa	390 ksi	ASTM D790
Compressive Strength	95.8 MPa	13900 psi	ASTM D695
Shear Strength	62.1 MPa	9000 psi	ASTM D732
Izod Impact, Notched	0.694 J/cm	1.30 ft-lb/in	ASTM D256
Coefficient of Friction	0.36	0.36	

Thermal Properties	Metric	English	Comments
CTE, linear	55.8 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	31.0 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	ASTM D696
Thermal Conductivity	0.252 W/m-K	1.75 BTU-in/hr-ft <sup>2</sup> -°F	ASTM C177
Maximum Service Temperature, Air	149 °C	300 °F	
Deflection Temperature at 0.46 MPa	181 °C	358 °F	

Thermal Properties	Metric	English	ASTM D648 Comments
Deflection Temperature at 1.8 MPa (264 psi)	174 °C	345 °F	ASTM D648
Flammability, UL94	V-0	V-0	

Electrical Properties	Metric	English	Comments
Volume Resistivity	5.00e+16 ohm-cm	5.00e+16 ohm-cm	ASTM D257
Dielectric Constant	3.06	3.06	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Strength	16.7 kV/mm	425 kV/in	ASTM D149
Dissipation Factor	0.0050	0.0050	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	

Descriptive Properties	Value	Comments
FDA Compliance	yes	

## Contact Songhan Plastic Technology Co.,Ltd.

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