

## Quantum PPS

Category : Polymer , Thermoplastic , Polyphenylene Sulfide (PPS)

**Material Notes:**

Information provided by Quantum Advanced Engineering Plastics

Order this product through the following link:

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

Physical Properties	Metric	English	Comments
Specific Gravity	1.35 g/cc	1.35 g/cc	ASTM D792
Water Absorption	0.020 %	0.020 %	ASTM D570
Water Absorption at Saturation	0.030 %	0.030 %	ASTM D570

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	95	95	ASTM D785
Hardness, Rockwell R	125	125	ASTM D785
Hardness, Shore D	86	86	ASTM 2240
Tensile Strength	89.6 MPa	13000 psi	ASTM D638
Elongation at Break	4.0 - 5.0 %	4.0 - 5.0 %	ASTM D638
Tensile Modulus	3.31 GPa	480 ksi	ASTM D638
Flexural Strength	145 MPa	21000 psi	ASTM D790
Flexural Modulus	4.00 GPa	580 ksi	ASTM D790
Compressive Strength	145 MPa	21000 psi	ASTM D695
Shear Strength	62.1 MPa	9000 psi	ASTM D732
Izod Impact, Notched	0.267 J/cm	0.500 ft-lb/in	ASTM D256

Thermal Properties	Metric	English	Comments
CTE, linear	52.2 $\mu\text{m}/\text{m}\cdot\text{°C}$	29.0 $\mu\text{in}/\text{in}\cdot\text{°F}$	ASTM D696
Thermal Conductivity	0.288 W/m-K	2.00 BTU-in/hr-ft <sup>2</sup> -°F	ASTM C177
Melting Point	282 °C	540 °F	ASTM D3417
Maximum Service Temperature, Air	218 °C	425 °F	
Deflection Temperature at 0.46 MPa	204 °C	400 °F	

<small>(56 psi)</small> Thermal Properties	Metric	English	ASTM D648 Comments
Deflection Temperature at 1.8 MPa (264 psi)	107 °C	225 °F	ASTM D648
Flammability, UL94	V-0	V-0	

Electrical Properties	Metric	English	Comments
Volume Resistivity	4.50e+16 ohm-cm	4.50e+16 ohm-cm	ASTM D257
Dielectric Constant	3.0	3.0	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Strength	15.7 kV/mm	400 kV/in	ASTM D149
Dissipation Factor	0.0010	0.0010	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	

Descriptive Properties	Value	Comments
FDA Compliance	no	

## Contact Songhan Plastic Technology Co.,Ltd.

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