

## Quantum PVDF

Category : Polymer , Thermoplastic , Fluoropolymer , PVDF

**Material Notes:**

Information provided by Quantum Advanced Engineering Plastics

Order this product through the following link:

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

Physical Properties	Metric	English	Comments
Specific Gravity	1.78 g/cc	1.78 g/cc	ASTM D792
Water Absorption	0.030 %	0.030 %	ASTM D570
Water Absorption at Saturation	0.050 %	0.050 %	ASTM D570

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	75	75	ASTM D785
Hardness, Rockwell R	84	84	ASTM D785
Hardness, Shore D	77	77	ASTM 2240
Tensile Strength	48.3 MPa	7000 psi	ASTM D638
Elongation at Break	100 %	100 %	ASTM D638
Tensile Modulus	1.72 GPa	250 ksi	ASTM D638
Flexural Strength	20.7 MPa	3000 psi	ASTM D790
Flexural Modulus	2.00 GPa	290 ksi	ASTM D790
Compressive Strength	72.4 MPa	10500 psi	ASTM D695
Izod Impact, Notched	1.60 J/cm	3.00 ft-lb/in	ASTM D256
Coefficient of Friction	0.58	0.58	

Thermal Properties	Metric	English	Comments
CTE, linear	119 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	66.0 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	ASTM D696
Thermal Conductivity	0.108 W/m-K	0.750 BTU-in/hr-ft <sup>2</sup> -°F	ASTM C177
Melting Point	168 °C	335 °F	ASTM D3417
Maximum Service Temperature, Air	138 °C	280 °F	
Deflection Temperature at 0.46 MPa	132 °C	270 °F	

<small>(56 psi)</small> Thermal Properties	Metric	English	ASTM D648 Comments
Deflection Temperature at 1.8 MPa (264 psi)	110 °C	230 °F	ASTM D648
Flammability, UL94	V-0	V-0	

Electrical Properties	Metric	English	Comments
Volume Resistivity	2.00e+14 ohm-cm	2.00e+14 ohm-cm	ASTM D257
Dielectric Constant	8.35	8.35	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Strength	63.0 kV/mm	1600 kV/in	ASTM D149
Dissipation Factor	0.060	0.060	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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