

## Quantum Acetal-Copolymer

Category : Polymer , Thermoplastic , Acetal (POM) , Acetal Copolymer, Unreinforced

**Material Notes:**

Information provided by Quantum Advanced Engineering Plastics

Order this product through the following link:

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

Physical Properties	Metric	English	Comments
Specific Gravity	1.41 g/cc	1.41 g/cc	ASTM D792
Water Absorption	0.20 %	0.20 %	ASTM D570
Water Absorption at Saturation	0.90 %	0.90 %	ASTM D570

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	88	88	ASTM D785
Hardness, Rockwell R	120	120	ASTM D785
Hardness, Shore D	85	85	ASTM 2240
Tensile Strength	65.5 MPa	9500 psi	ASTM D638
Elongation at Break	40 %	40 %	ASTM D638
Tensile Modulus	2.76 GPa	400 ksi	ASTM D638
Flexural Strength	82.7 MPa	12000 psi	ASTM D790
Flexural Modulus	2.76 GPa	400 ksi	ASTM D790
Compressive Strength	103 MPa	15000 psi	ASTM D695
Compressive Modulus	2.76 GPa	400 ksi	ASTM D695
Shear Strength	55.2 MPa	8000 psi	ASTM D732
Izod Impact, Notched	0.641 J/cm	1.20 ft-lb/in	ASTM D256
Coefficient of Friction	0.15	0.15	

Thermal Properties	Metric	English	Comments
CTE, linear	97.2 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$	54.0 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$	ASTM D696
Thermal Conductivity	0.231 W/m-K	1.60 BTU-in/hr-ft <sup>2</sup> -°F	ASTM C177
Melting Point	168 °C	335 °F	ASTM D3417

Thermal Properties <small>Temperature, Air</small>	Metric	English	Comments
Deflection Temperature at 0.46 MPa (66 psi)	160 °C	320 °F	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	110 °C	230 °F	ASTM D648
Flammability, UL94	HB	HB	

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	ASTM D257
Dielectric Constant	3.8	3.8	ASTM D150
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dielectric Strength	19.7 kV/mm	500 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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