



## MECHETEC<sup>®</sup> ACETAL



MECHATEC ACETAL - Polyoxymethylene Copolymer (POM-C)



Easily Machined and Fabricated



Low Water Absorption

### APPLICATIONS

- Gears
- Wear Strips
- Timing Screws
- Pistons and Valves
- Pump Components
- Bushings and Bearings

### KEY FEATURES

- 185° F Continuous Use Temperature
- Excellent Machining Stability
- High Strength and Stiffness
- Superior Wear Resistance
- Large Size Capability

### SHAPES AND SIZES

#### ROD DIAMETER

NATURAL	0.25" - 10.0"
BLACK	0.25" - 10.0"
esd	0.25" - 3.0"

#### SHEET THICKNESS

NATURAL	0.25" - 4.0"
BLACK	0.25" - 4.0"
esd	0.25" - 2.0"



**MECHETEC®**  
**ACETAL**

	Test Method	Units	<b>NATURAL and BLACK</b> Unfilled Copolymer	<b>ACETAL esd</b> Static Dissipative Copolymer
<b>Mechanical</b>				
Specific Gravity	ASTM-D792	---	1.4	1.33
Tensile Strength	ASTM-D638	psi	9,000-10,200	6,600
Tensile Elongation	ASTM-D638	%	30-60	45
Tensile Modulus of Elasticity	ASTM-D638	psi	400,000	---
Flexural Strength	ASTM-D790	psi	12,000	7,000
Flexural Modulus of Elasticity	ASTM-D790	psi	366,000	210,000
Compressive Strength	ASTM-D695	psi	15,000	---
Izod Notched Impact	ASTM-D256	ft.-lb./in.	1	2
Rockwell Hardness	ASTM-D785	M or R scale	M90	---
<b>Thermal</b>				
Coef. of Linear Thermal Expansion	ASTM-D696	in./in./deg F	5.4 x 10 <sup>-5</sup>	6.5 x 10 <sup>-5</sup>
Max. Continuous Use Temp.	Internal Std.	°F	185	185
Heat Deflection Temp. @ 264 psi	ASTM-D648	°F	220	141
Melting Point	ASTM-D3418	°F	335	---
<b>Electrical</b>				
Dielectric Strength-Short Term	ASTM-D149	volts/mil	500	---
Dielectric Constant @ 60 Hz	ASTM-D150	---	3.8	---
Dielectric Constant @ 10 <sup>6</sup> Hz	ASTM-D150	---	3.8	---
Dissipation Factor @ 60 Hz	ASTM-D150	---	0.003	---
Volume Resistivity	ASTM-D257	ohm-cm	10 <sup>15</sup>	10 <sup>9</sup> -10 <sup>11</sup>
<b>Miscellaneous</b>				
Water Absorption/24 hrs.	ASTM-D570	% weight	0.25	0.2
Water Absorption @ Saturation	ASTM-D570	% weight	0.8	2.5
Flammability	UL-94	---	HB	HB
Dynamic Coefficient of Friction	Internal Std.	---	0.21	---
<b>Agency Compliance</b>				
FDA	---	---	Yes	No
USDA	---	---	Yes	No
NSF	---	---	Yes	No

MECHETEC® is a registered trademark of Polymer Industries

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