



MECHETEC[®] 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	NATURAL BLACK Unfilled Copolymer	esd Static Dissipative Copolymer
Mechanical				
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	---
Thermal				
Coef. of Linear Thermal Expansion	ASTM-D696	in./in./deg F	5.4 X 10 ⁻⁵	6.5 X 10 ⁻⁵
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	---
Electrical				
Dielectric Strength-Short Term	ASTM-DI49	volts/mil	500	---
Dielectric Constant@ 60 Hz	ASTM-DI50	---	3.8	---
Dielectric Constant@ 10 ⁶ Hz	ASTM-DI50	---	3.8	---
Dissipation Factor@ 60 Hz	ASTM-DI50	---	0.003	---
Volume Resistivity	ASTM-D257	ohm-cm	10 ¹⁵	10 ⁹ -10 ¹¹
Miscellaneous				
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	---
Agency Compliance				
FDA	---	---	Natural Only	No
USDA	---	---	Yes	No
NSF	---	---	---	No

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