

DELTRIN® ACETAL HOMOPOLYMER

KEY FEATURES

- Good Dimensional Stability
- Low Moisture Absorption
- Excellent Machinability
- High Fatigue Endurance
- High Strength and Stiffness Properties
- Superior Impact and Creep Resistance
- Chemical Resistance to Fuels and Solvents
- Natural Grade is made from Resin that is FDA, NSF and USDA Compliant
- Good Wear and Abrasion Properties

DESCRIPTION

DELTRIN® acetal homopolymer is a crystalline plastic which offers an excellent balance of properties that bridge the gap between metals and plastics. DELTRIN® possesses high tensile strength, creep resistance and toughness. It also exhibits low moisture absorption. It is chemically resistant to hydrocarbons, solvents and neutral chemicals. These properties along with its fatigue endurance make DELTRIN® ideal for many industrial applications.

TYPICAL PROPERTY VALUES

	Properties	Condition	Units	Value	ASTM Test
Physical	Chemical Designation			POM	
	Filler				
	Density		g/cm ³	1.41	D792
Mechanical	Tensile Modulus	@ 73 °F	PSI	450,000	D638
	Tensile Strength @ Yld	@ 73 °F	PSI	11,000	D638
	Tensile Strength @ Brk	@ 73 °F	PSI		
	Shear Strength	@ 73 °F	PSI		
	Elongation @ Yld	@ 73 °F	%		
	Elongation @ Brk	@ 73 °F	%	25	D638
	Flexural Modulus	@ 73 °F	PSI	420,000	D790
	Flexural Strength	@ 73 °F	PSI	11,500	D790
	Compressive Modulus	@ 73 °F	PSI		
	Compressive Strength	@ 73 °F, 10% strain	PSI		
	Izod (charpy) Impact Strength	@ 73 °F	ft-lbs/in	1.5	D256
	Rockwell Hardness	@ 73 °F	M (R) Scale	94	D785
	Coefficient of Friction	Static			
	Coefficient of Friction	Dynamic, 40PSI, 50% RH		0.2	D3702
	Wear (K) Factor		in ³ -min/ft-lbs-hr	55*10 ⁻¹⁰	D3702
Limiting PV		psi-fpm			

TYPICAL PROPERTY VALUES

	Properties	Condition	Units	Value	ASTM Test
Thermal	Vicat Softening Point		°F		
	Melting Temperature		°F	347	
	Heat Deflection Temperature	@ 66	°F	336	D648
	Heat Deflection Temperature	@ 264	°F	257	D648
	Service Temperature	Intermittent	°F	300	
	Service Temperature	Long Term	°F	185	
	Thermal Expansion (CLTE)		in/in/°F	6.8*10 ⁻⁵	D696
	Specific Heat		BTU/lb-°F	0.35	
	Thermal Conductivity		BTU-in/hr-ft_-°F		
Electrical	Surface Resistivity		ohms/square		
	Volume Resistivity		ohm-cm	>10 ¹⁵	D257
	Dielectric Strength		V/mil	500	D149
	Dielectric Constant	@ 60 Hz, 73 °F 50% RH		3.7	D150
	Dissipation Factor	@ 60 Hz, 73 °F		0.005	D150
Other	Moisture Absorption	@ 24 hrs, 73 °F	%	0.25	D570
	Moisture Absorption	@ Saturation, 73 °F	%	0.9	D570
	Flammability	UL 94		HB	
	Food Grade			Y	
	Relative Cost			\$	

*The data stated above are typical values intended for reference and comparison purposes only.

*The data should not be used as a basis for design specifications or quality control.

*The information is provided as a guide to the best of our knowledge and given without obligation or liability.

*Testing under individual application circumstances is recommended.