

General Information

Chemical Designation: *Delrin 570 is a 20% glass filled acetal homopolymer blend. DuPont Delrin® is a popular acetal homopolymer brand name, and the most commonly used acetal homopolymer. The combination of glass in Delrin® acetal resin gives this material excellent stiffness, strength, and stability. This combination offers higher mechanical properties at elevated temperatures.*

POM (Polyoxymethylene)

Fillers: *It is commonly utilized in spools, fixtures, and electrical components where dimensional stability and enhanced mechanical and insulating properties are required.*

Glass

Color: *Available in sheet and rod, it is easily machined with standard metal working equipment. Tolerances of +/- .0005 can be achieved with experience. The glass can lead to some premature wear of tooling, so care should be taken to avoid excessive tool speeds.*

Cream, Opaque

Specific Gravity: *Delrin® is a registered trademark of Dupont.*

1.56

Technical Information

Specification	Test	Value	Units
Specific Gravity, 73°F	D792	1.56	-
Tensile Strength @ Yield, 73°F	D638	7,700	psi
Tensile Modulus of Elasticity, 73°F	D638	860,000	psi
Tensile Elongation (at break), 73°F	D638	10	%
Flexural Strength, 73°F	D790	14,500	psi
Flexural Modulus of Elasticity	D790	650,000	psi
Shear Strength, 73°F	D732	-	psi
Compressive Strength – Ultimate		-	psi
Compressive Strength at 1% Deformation	D695	1,500	psi
Compressive Strength at 10% Deformation	D695	14,500	psi
Deformation Under Load		< 2	%
Compressive Modulus of Elasticity, 73°F	D695	-	
Compressive Strength \perp to Laminate (Modulus)			psi
Compressive Strength \perp to Laminate (Yield)		1,450	psi
Compressive Strength \perp to Laminate (Ultimate)		1,450	psi
Hardness, Durometer (Shore "D" scale)	D2240	D83	
Hardness, Rockwell (Scale as noted)	D785	87	Rockwell M
Izod Impact, Notched @ 73°F	D256 Type A	0.6	ft.lbs/in. of notch
Coefficient of Friction (Dry vs Steel) Static	PTM 55007	-	
Coefficient of Friction (Dry vs Steel) Dynamic	PTM 55007	-	
Maximum Static Bearing Load (P)	PTM 55007	-	psi
Maximum Unlubricated No Load Bearing Velocity (V)	PTM 55007	-	ft/minute
Maximum Limiting PV (Unlubricated)	PTM 55007	-	psi x ft/min.
Wear Factor "K" x 10-10	PTM 55010	-	Cubic in.-min/ft.lbs.hr
Sand Wheel Wear/Abrasion Test		-	UHMW=100
Minimum Mating Surface Hardness		-	Rockwell (Brinnell)
Coefficient of Linear Thermal Expansion	E-831 (TMA)	4.72	in/in/°F x 10-5
Coefficient of Thermal Expansion // to Laminates	E-831 (TMA)	4.72	in/in/°F x 10-5
Coefficient of Thermal Expansion \perp to Laminates	E-831 (TMA)	4.72	in/in/°F x 10-5
Softening Point		-	°F
Heat Deflection Temperature 264 psi	D648	311	°F
Embrittlement Temperature		-	°F Min.
Continuous Service Temperature in Air		185	°F Max.
Short Term Service Temperature		300	°F Max.
Tg-Glass Transition (Amorphous)	D3418		°F
Melting Point (Crystalline) Peak	D3418	347	°F
Thermal Conductivity	F433		BTU-in/(hr/ft ² °F)
Dielectric Strength Short Term	D149	452	Volts/mil
Volume Resistivity	D257	>8x10 ¹⁴	ohm/cm
Surface Resistivity	D257	>2x10 ¹⁵	ohm/cm
Dielectric Constant, 106 Hz	D150	3.8	
Dissipation Factor, 106 Hz	D150	0.006	
Flammability @ 1.47mm(1/16 in.) UL94	UL94	HB	
Arc Resistance			seconds
Water Absorption, Immersion 24 Hours	D570 (2)	0.15	%
Water Absorption, Immersion Saturation	D570 (2)	1.0	%
Machinability Rating		3	1=easy, 10=difficult
Rod Diameter Availability (Off the Shelf)	.125	6.0	inches
Sheet Thickness Availability (Off the Shelf)	.250	3.0	inches
Characteristics / Attributes		High Strength/Rigid/High Creep Resistance	

Thank you for your interest in our materials. All statements, technical information and recommendations presented are in good faith, based upon tests believed to be reliable and practical field experience. Poly-Tech is not responsible for its accuracy or completeness. It is our recommendation and the customer's responsibility to determine the suitability of any material for any given application.