

Ensinger Delrin® 150 Homopolymer Acetal (POM)

Categories: [Polymer](#); [Thermoplastic](#); [Acetal \(Polyoxymethylene, POM\)](#); [Acetal Homopolymer, Unreinforced](#)

Material Notes: Ensinger's Delrin® 150 stock shapes are a homopolymer acetal manufactured using DuPont Delrin 150 Resin. It is a crystalline plastic which offers an excellent balance of properties to bridge the gap between metals and plastics. It possesses high tensile and flexural properties, along with creep resistance and toughness, while exhibiting low moisture absorption, and fatigue endurance.

Information Provided by Ensinger, Inc.

Vendors: [Ensinger High Performance Plastics](#) withstand severe environments, resist harsh chemicals, and perform well in extreme temperatures. They offer weight savings that have potential to drive lower cost systems.

[Click here](#) to view all available suppliers for this material.

Please [click here](#) if you are a supplier and would like information on how to add your listing to this material.

Physical Properties	Metric	English	Comments
Specific Gravity	1.42 g/cc	1.42 g/cc	ASTM D792
Water Absorption	0.25 % @Time 86400 sec	0.25 % @Time 24.0 hour	ASTM D570
Water Absorption at Saturation	0.90 %	0.90 %	ASTM D570
Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	94	94	ASTM D785
Hardness, Rockwell R	120	120	ASTM D785
Tensile Strength, Yield	75.8 MPa	11000 psi	ASTM D638
Elongation at Break	25 %	25 %	ASTM D638
Tensile Modulus	3.10 GPa	450 ksi	ASTM D638
Flexural Strength	110 MPa	16000 psi	ASTM D790
Flexural Modulus	2.90 GPa	420 ksi	ASTM D790
Compressive Strength	35.9 MPa	5200 psi	ASTM D695
Izod Impact, Unnotched	0.80 J/cm	1.5 ft-lb/in	ASTM D256
Coefficient of Friction, Dynamic	0.20	0.20	40 psi, 50 fpm; ASTM D3702
K (wear) Factor	111 x 10 ⁻⁸ mm ³ /N-M	55.0 x 10 ⁻¹⁰ in ³ -min/ft-lb-hr	ASTM D3702
Limiting Pressure Velocity	0.0513 MPa-m/sec	1460 psi-ft/min	ASTM D792
Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+15 ohm-cm	1.00e+15 ohm-cm	ASTM D257
Dielectric Constant	3.7 @Frequency 60 Hz	3.7 @Frequency 60 Hz	50% RH; ASTM D150
Dielectric Strength	19.7 kV/mm	500 kV/in	ASTM D149
Dissipation Factor	0.0050 @Frequency 60 Hz	0.0050 @Frequency 60 Hz	ASTM D150
Thermal Properties	Metric	English	Comments
CTE, linear	122 µm/m-°C	68.0 µin/in-°F	ASTM D696
Melting Point	175 °C	347 °F	ASTM D2133
Maximum Service Temperature, Air	85.0 °C 149 °C	185 °F 300 °F	Continuous; UL 746B Intermittent
Deflection Temperature at 0.46 MPa (66 psi)	169 °C	336 °F	ASTM D648
Deflection Temperature at 1.8 MPa (264 psi)	125 °C	257 °F	ASTM D648
Flammability, UL94	HB	HB	UL 94

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a consistent format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error. We also ask that you refer to MatWeb's [terms of use](#) regarding this information. [Click here](#) to view all the property values for this datasheet as they were originally entered into MatWeb.