Trident Plastics Inc.

Delrin® 150 NC010 Acetal

POM-H Natural Extruded Shapes

Product Description

DuPont Delrin® is a homopolymer acetal which offers an excellent balance of properties that bridge the gap between metals and plastics. Delrin® shapes 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 Delrin® shapes ideal for many industrial applications.

Delrin® 150 acetal homopolymer offers slightly higher mechanical properties than acetal copolymer, but may contain a low density center (also known as "center line porosity") especially in large cross-sections. Delrin® also gives slightly less chemical resistance than copolymer acetal. As an example, Delrin® is ideal for small diameter, thin-walled bushings that benefit from the additional strength and rigidity of homopolymer acetal.

Applications
- Structural components
- Bearings, bushings, wear pads
- Gears
- Rollers
- Electrical components
- Jigs and fixtures

Characteristics
- Low moisture absorption
- Low coefficient of friction
- High strength and stiffness
- Excellent electrical properties
- Good chemical resistance

General

Plate: .031 through 5.00" thick

Plate sizes: 24x48 • 48x120

Extruded Rod: .187 through 10.00" diameter

Cut to size shapes and custom sizes available on request

Standard colors: Natural (white)

ASTM D6778-20 POM0111 • ASTM D6100-17 S-POM0111 • FDA 21CFR177.2480 • NSF Std. 51 & 61

Physical	Nominal Value (English)		Test Method
Density	1.41	g/cm³	
Water Absorption			ASTM D570
24 hr, 73°F	0.25	%	
Saturation, 73°F	0.9	%	
Water Absorption (24 hr, 73°F)	1.4	%	ASTM D570

Mechanical	Nominal Value (English)		Test Method
Tensile Modulus (73°F)	350000	psi	ASTM D638
Tensile Strength (Yield)	11000	psi	ASTM D638
Tensile Elongation (Break, 73°F)	25	%	ASTM D638
Flexural Modulus (73°F)	470000	psi	ASTM D790
Flexural Strength (73°F)	14000	psi	ASTM D790
Compressive Modulus	325000	psi	ASTM D695
Compressive Strength			ASTM D695
1% Strain	2600	psi	
10% Strain	15500	psi	
Shear Strength (73°F)	9800	psi	ASTM D732
Coefficient of Friction [3] (Dynamic)	0.2		ASTM D3702
Wear Factor [3]	55	10^-10 in³·min/ft·lb·hr	ASTM D3702

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Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (73°F)	2 ft·lb/in		ASTM D256
Hardness	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Rockwell Hardness			ASTM D785
M-Scale, 73°F	94		
R-Scale, 73°F	120		
Durometer Hardness (Shore D)	84		ASTM D2240
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Deflection Temperature Under Load			ASTM D648
66 psi, Unannealed	336 °F		
264 psi, Unannealed	257 °F		
Melting Temperature	347 °F		ASTM D2133
CLTE - Flow	6.80E-05 in/in/°F		ASTM D696
Specific Heat	0.35 Btu/lb/°F		
Service Temperature			
Intermittent	300 °F		
Long term	185 °F		
Electrical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Volume Resistivity	> 1.0E+15 ohms·cm		
Dielectric Strength	500 V/mil		ASTM D149
Dielectric Constant [4] (73°F, 60 Hz)	3.7		ASTM D150
Dissipation Factor (73°F, 60 Hz)	5.00E-03		ASTM D150
Flammability	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Flame Rating (0.06 in)	HB		UL 94

* This information is based on average resin value specifications and is only to assist and advise you on the current technical knowledge, it is given without obligations or liability.

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