

## Delrin® 150 Black Acetal

### POM-H Black 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
- Easy to fabricate



#### 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: Black

ASTM D6778-20 POM0111 • ASTM D6100-17 S-POM0111

Physical	Nominal Value (English)	Test Method
Density	1.42 g/cm <sup>3</sup>	
Water Absorption		ASTM D570
24 hr, 73°F	%	
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)	40 %	ASTM D638
Flexural Modulus (73°F)	460000 psi	ASTM D790
Flexural Strength (73°F)	14000 psi	ASTM D790
Compressive Modulus (73°F)	460000 psi	ASTM D695
Compressive Strength		ASTM D695
1% Strain	2700 psi	
10% Strain	14000 psi	
Coefficient of Friction <sup>3</sup> (Dynamic)	0.2	ASTM D3702
Wear Factor <sup>3</sup>	55 10 <sup>-10</sup> in <sup>3</sup> .min/ft.lb-hr	ASTM D3702

## Delrin® 150 Black POM-H

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Notched Izod Impact (73°F)	1.5 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		
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 <sup>4</sup> (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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