

**Product Texts**

Common features of Delrin® acetal resins include mechanical and physical properties such as high mechanical strength and rigidity, excellent fatigue and impact resistance, as well as resistance to moisture, gasoline, lubricants, solvents, and many other neutral chemicals. Delrin® acetal resins also have excellent dimensional stability and good electrical insulating characteristics. They are naturally resilient, self-lubricating, and available in a variety of colors and speciality grades.

Delrin® acetal resin typically is used in demanding applications in the automotive, domestic appliances, sports, industrial engineering, electronics, and consumer goods industries.

**Delrin® 100AF is a high viscosity acetal homopolymer containing 20% PTFE fibers. It is designed for applications requiring low wear and/or low friction against steel, itself, or other plastics.**

**Due to the color of the PTFE fibers, the natural color of this material is brown.**

Processing/Physical Characteristics	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Molding shrinkage, parallel	2.1	%	ISO 294-4, 2577
<sup>[C]</sup> Molding shrinkage, normal	1.5	%	ISO 294-4, 2577
<b>ASTM Data</b>			
Melt Flow Index, MFI	0.5	g/10min	ASTM D 1238
Temperature	190	°C	-
Load	1.05	kg	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Tensile Modulus	2700	MPa	ISO 527
<sup>[C]</sup> Stress at break	53	MPa	ISO 527
<sup>[C]</sup> Strain at break	15	%	ISO 527
<sup>[C]</sup> Charpy impact strength, +23°C	70	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy notched impact strength, +23°C	5	kJ/m <sup>2</sup>	ISO 179/1eA
<b>ASTM Data</b>			
Tensile Modulus	2750	MPa	ASTM D 638
Tensile Strength	53	MPa	ASTM D 638
Elongation at Break	19	%	ASTM D 638
Flexural Modulus	2510	MPa	ASTM D 790
Izod Impact notched, 1/8 in	50	J/m	ASTM D 256

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Melting temperature, 10°C/min	178	°C	ISO 11357-1/-3
<sup>[C]</sup> Temp. of deflection under load, 1.80 MPa	87	°C	ISO 75-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, parallel	110	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, normal	110	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Burning Behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
Yellow Card available	yes	-	-
<sup>[C]</sup> Burning Behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	3.0	mm	-
Yellow Card available	yes	-	-

<b>ASTM Data</b>			
UL 94 Flame rating	HB	-	UL 94
Thickness tested	1.5	mm	-
Coefficient of Thermal Expansion, MD	114	E-6/K	ASTM D 696
Coefficient of Thermal Expansion, TD	110	E-6/K	ASTM D 696
Melting Temperature	178	°C	ASTM D 3418

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
<sup>[C]</sup> Density	1540	kg/m <sup>3</sup>	ISO 1183
Density	1530	kg/m <sup>3</sup>	ASTM D 792

[C]: CAMPUS

## Characteristics

### Processing

Injection Molding, Profile Extrusion, Sheet Extrusion, Other Extrusion

### Delivery form

Pellets

### Additives

Lubricants, Release agent

### Features

Tribologic Grade, Homopolymer

### Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

## Other text information

### Injection molding

Drying is recommended, but not necessary for newly opened packaging stored in a dry location.

Follow the drying guidelines above in the following cases:

- If moisture is above the Processing Moisture Content recommendation,
- When a resin container is damaged,
- When the material is not properly stored in a dry place at room temperature, or
- When packaging stays open for a significant time.