

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® 100AL is a high viscosity acetal homopolymer containing an advanced system of lubrication designed for low wear, low friction, and low noise against metals and plastics.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
Melt flow index, MFI	2.5	g/10min	ISO 1133
Temperature	190	°C	-
Load	2.16	kg	-
^[C] Molding shrinkage, parallel	2.0	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	1.7	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	3000	MPa	ISO 527
^[C] Yield stress	70	MPa	ISO 527
^[C] Yield strain	18	%	ISO 527
^[C] Nominal strain at break	40	%	ISO 527
Flexural modulus, 23°C	2800	MPa	ISO 178
^[C] Tensile creep modulus, 1h	2700	MPa	ISO 899-1
^[C] Tensile creep modulus, 1000h	1500	MPa	ISO 899-1
^[C] Charpy impact strength, +23°C	N	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	200	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	10.5	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	7.5	kJ/m ²	ISO 179/1eA
Izod notched impact strength, +23°C	8	kJ/m ²	ISO 180/1A
Rockwell hardness	R 122	-	ISO 2039-2

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	178	°C	ISO 11357-1/-3
^[C] Temp. of deflection under load, 1.80 MPa	97	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	163	°C	ISO 75-1/-2
^[C] Coeff. of linear therm. expansion, parallel	110	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	110	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
Yellow Card available	yes	-	-
^[C] Burning Behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	0.8	mm	-
Yellow Card available	yes	-	-
Burning rate, FMVSS, Thickness 1 mm	26 ^[1]	mm/min	ISO 3795 (FMVSS 302)

1: Thickness 1 mm [C]: CAMPUS

Other properties	Value	Unit	Test Standard
^[C] Density	1400	kg/m ³	ISO 1183

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 4	h	-

Delrin® 100AL NC010

POM-Z

Delrin

Processing humidity	≤0.2	%	-
Melt temperature	210 - 220	°C	-
Mold temperature	80 - 100	°C	-
Holding pressure	90 - 110	MPa	-

Processing Recommendation Extrusion	Value	Unit	Test Standard
Pre-drying - Temperature	75 - 85	°C	-
Pre-drying - Time	2 - 4	h	-
Processing humidity	≤0.2	%	-
Melt temperature	195 - 205	°C	-

Characteristics**Processing**

Injection Molding, Profile Extrusion, Sheet Extrusion, Other Extrusion

Delivery form

Pellets, Natural Color

Additives

Lubricants, Release agent

Special Characteristics

High impact or impact modified

Features

Fatigue Resistance, Homopolymer

Chemical Resistance

General Chemical Resistance, Solvent Resistance

Applications

Automotive, Electrical and Electronical, Sports Equipment

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.