

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® 500CPE is a medium viscosity acetal homopolymer with very low VOC emissions for applications in automotive interiors. It provides good mechanical performances with improved processing, thermal stability and productivity for injection molding.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	1.8	%	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	3300	MPa	ISO 527
^[C] Yield stress	74	MPa	ISO 527
^[C] Yield strain	15	%	ISO 527
^[C] Nominal strain at break	25	%	ISO 527
^[C] Charpy impact strength, +23°C	230	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	9	kJ/m ²	ISO 179/1eA

[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	102	°C	ISO 75-1/-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	-	-

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
^[C] Density	1420	kg/m ³	ISO 1183

[C]: CAMPUS

Characteristics**Processing**

Injection Molding

Delivery form

Pellets, Black

Additives

Release agent

Features

Low Emission, Thermal Stability, Homopolymer

Applications

Automotive

Regional Availability

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

Other text information**Injection molding**

Created: 02.09.2025 Source: www.materialdatacenter.com

Page: 1/2

Copyright Altair Engineering GmbH. Altair Engineering GmbH assumes no liability for the system to be free of errors. The user takes sole responsibility for the use of this data under the exclusion of every liability from Altair Engineering GmbH; this is especially valid for claims of compensation resulting from consequential damages. Altair explicitly points out that any decision about the application of materials must be double checked with the producer of this material. This includes all contents of this system. Copyright laws are applicable for the content of this system.

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.