

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® RA100CPE is a high viscosity acetal homopolymer for use in easy-to-fill moulds with very low VOC emissions, reduced lifecycle greenhouse gas emissions and lower fossil resource use. Delrin® RA100CPE provides optimum mechanical performance with its excellent combination of toughness and strength with improved processing, thermal stability and productivity for injection molding.

Delrin® Renewable Attributed base polymer is produced from 100% bio-feedstock from waste*. 100% certified renewable electricity is used for its production.

This approach helps customers in achieving their sustainability goals.

* according to ISCC Plus mass balance certification.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
^[C] Melt volume-flow rate, MVR	1.9	cm ³ /10min	ISO 1133
Temperature	190	°C	-
Load	2.16	kg	-
^[C] Molding shrinkage, parallel	2.2	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	1.9	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	2900	MPa	ISO 527
^[C] Yield stress	71	MPa	ISO 527
^[C] Yield strain	28	%	ISO 527
^[C] Nominal strain at break	45	%	ISO 527
^[C] Charpy impact strength, +23°C	N	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	450	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	16	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	13	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	95	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	160	°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	100	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	-	-

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 100Hz	4.1	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	4	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	25	E-4	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	45	E-4	IEC 62631-2-1

Delrin® RA100CPE NC010

POM

Delrin

[C] Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
[C] Surface resistivity	6E14	Ohm	IEC 62631-3-2
[C] Comparative tracking index	600	-	IEC 60112

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
[C] Water absorption	1	%	Sim. to ISO 62
[C] Humidity absorption	0.1	%	Sim. to ISO 62
[C] Density	1420	kg/m ³	ISO 1183

[C]: CAMPUS

Characteristics

Processing

Injection Molding, Profile Extrusion, Sheet Extrusion, Other Extrusion

Delivery form

Pellets, Natural Color

Features

Low Emission, Thermal Stability, Homopolymer

Certifications

Contains renewable resources, ISCC Plus

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.