Delrin® RAFG100 NC010

POM | Delrin

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® RAFG100 NC010 is a high viscosity acetal homopolymer for use in easy-to-fill molds with reduced lifecycle greenhouse gas emissions and lower fossil resource use. Delrin® RAFG100 NC010 provides a great combination of toughness and strength, and improved processing thermal stability and productivity for injection molding. It has been developed for applications in contact with food.

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.

FOOD CONTACT
This product is manufactured according to Good Manufacturing Practice (GMP) principles and generally accepted in food contact applications in Europe and the USA when meeting applicable use conditions. For details, individual compliance statements are available from your DuPont representative.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
[C] Melt volume-flow rate, MVR	**1.9**	cm³/10min	ISO 1133
Temperature	**190**	°C	-
Load	**2.16**	kg	-
[C] Molding shrinkage, parallel	**2.0**	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**1.9**	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**3000**	MPa	ISO 527
[C] Yield stress	**71**	MPa	ISO 527
[C] Yield strain	**25**	%	ISO 527
[C] Nominal strain at break	**45**	%	ISO 527
[C] Tensile creep modulus, 1h	**2900**	MPa	ISO 899-1
[C] Tensile creep modulus, 1000h	**1600**	MPa	ISO 899-1
[C] Charpy impact strength, +23°C	**N**	kJ/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**N**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**15**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**11**	kJ/m²	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	**98**	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**165**	°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**	-	-

[C]: CAMPUS

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Other properties	Value	Unit	Test Standard
[C] Water absorption	**0.9**	%	Sim. to ISO 62
[C] Humidity absorption	**0.2**	%	Sim. to ISO 62
[C] Density	**1420**	kg/m³	ISO 1183

[C]: CAMPUS

Characteristics

Processing
Injection Molding, Profile Extrusion, Sheet Extrusion, Other Extrusion

Delivery form
Pellets, Natural Color

Features
Thermal Stability, Homopolymer

Certifications
Food contact, 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.

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