Delrin® RASC655 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® RASC655 is a medium viscosity acetal homopolymer, with reduced lifecycle greenhouse gas emissions and lower fossil resource use. It has been developed for parts requiring high precision molding in the healthcare industry.

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.

SPECIAL CONTROL for HEALTHCARE APPLICATIONS
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. This product is also tested against ISO 10993-5 and -11 and selected parts of USP Class VI. 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	**13**	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	**3100**	MPa	ISO 527
[C] Yield stress	**71**	MPa	ISO 527
[C] Yield strain	**17**	%	ISO 527
[C] Nominal strain at break	**30**	%	ISO 527
[C] Tensile creep modulus, 1h	**2800**	MPa	ISO 899-1
[C] Tensile creep modulus, 1000h	**1600**	MPa	ISO 899-1
[C] Charpy impact strength, +23°C	**300**	kJ/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**280**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**9**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**8**	kJ/m²	ISO 179/1eA
[C] Puncture - maximum force, +23°C	**2000**	N	ISO 6603-2
[C] Puncture energy, +23°C	**3**	J	ISO 6603-2

[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	**95**	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**160**	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	**155**	°C	ISO 306
[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]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
[C] Relative permittivity, 100Hz	**3.8**	-	IEC 62631-2-1
[C] Relative permittivity, 1MHz	**3.8**	-	IEC 62631-2-1

[C] Dissipation factor, 100Hz	**90**	E-4	IEC 62631-2-1
[C] Dissipation factor, 1MHz	**55**	E-4	IEC 62631-2-1
[C] Volume resistivity	**2E12**	Ohm*m	IEC 62631-3-1
[C] Surface resistivity	**4E14**	Ohm	IEC 62631-3-2
[C] Electric strength	**44**	kV/mm	IEC 60243-1
[C] Comparative tracking index	**600**	-	IEC 60112

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
[C] Water absorption	**1.4**	%	Sim. to ISO 62
[C] Humidity absorption	**0.3**	%	Sim. to ISO 62
[C] Density	**1420**	kg/m³	ISO 1183

[C]: CAMPUS

Characteristics

Processing
Injection Molding

Delivery form
Pellets, Natural Color

Additives
Lubricants, Release agent

Features
Homopolymer

Certifications
Food contact, Biocompatibility ISO 10993, US Pharmacopeia Class VI Approved, ISCC Plus

Applications
Medical

Regional Availability
North America, Europe, Asia Pacific, South and Central America