

## DuPont Performance Polymers Delrin® FG900P NC010 Acetal Homopolymer (Unverified Data\*\*)

Category : Polymer , Thermoplastic , Acetal (POM)

### Material Notes:

Delrin® FG900P is a low viscosity acetal homopolymer, with improved thermal stability. It has been developed for consideration into applications such as parts for the food industry. Information provided by DuPont Performance Polymers

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_DuPont-Performance-Polymers-Delrin-FG900P-NC010-Acetal-Homopolymer-nbspUnverified-Data.php](http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Delrin-FG900P-NC010-Acetal-Homopolymer-nbspUnverified-Data.php)

Physical Properties	Metric	English	Comments
Density	1.42 g/cc	0.0513 lb/in <sup>3</sup>	ISO 1183
Water Absorption	0.26 %	0.26 %	Equilibrium 50%RH; ISO 62, Similar to
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	0.56 %	0.56 %	Immersion 24h; ISO 62, Similar to
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Linear Mold Shrinkage, Flow	1.4 %	1.4 %	Saturation, immersed; ISO 62, Similar to
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	0.019 cm/cm	0.019 in/in	ISO 294-4
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Linear Mold Shrinkage, Transverse	0.019 cm/cm	0.019 in/in	ISO 294-4
	@Thickness 2.00 mm	@Thickness 0.0787 in	
	25 g/10 min	25 g/10 min	ISO 1133
Melt Flow	@Load 2.16 kg, Temperature 190 °C	@Load 4.76 lb, Temperature 374 °F	
Melt Index of Compound	21 g/10 min	21 g/10 min	cm <sup>3</sup> /10 min; ISO 1133
	@Load 2.16 kg, Temperature 190 °C	@Load 4.76 lb, Temperature 374 °F	

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	71.0 MPa	10300 psi	ISO 527
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Elongation at Break	23 %	23 %	nominal; ISO 527
	@Temperature 23.0 °C	@Temperature 73.4 °F	
	12 %	12 %	

<b>Elongation at Yield Mechanical Properties</b>	<b>Metric</b> @ Temperature 23.0 °C	<b>English</b> @ Temperature 73.4 °F	<b>ISO 527 Comments</b>
<b>Tensile Modulus</b>	3.30 GPa @Temperature 23.0 °C	479 ksi @Temperature 73.4 °F	ISO 527
<b>Flexural Modulus</b>	3.00 GPa @Temperature 23.0 °C	435 ksi @Temperature 73.4 °F	ISO 178
<b>Charpy Impact Unnotched</b>	20.0 J/cm <sup>2</sup> @Temperature -30.0 °C	95.2 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 179/1eU
	20.0 J/cm <sup>2</sup> @Temperature 23.0 °C	95.2 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 179/1eU
<b>Charpy Impact, Notched</b>	0.700 J/cm <sup>2</sup> @Temperature -30.0 °C	3.33 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 179/1eA
	0.800 J/cm <sup>2</sup> @Temperature 23.0 °C	3.81 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 179/1eA
<b>Tensile Creep Modulus, 1 hour</b>	2800 MPa @Temperature 23.0 °C	406000 psi @Temperature 73.4 °F	ISO 899
<b>Tensile Creep Modulus, 1000 hours</b>	1500 MPa @Temperature 23.0 °C	218000 psi @Temperature 73.4 °F	ISO 899

<b>Thermal Properties</b>	<b>Metric</b>	<b>English</b>	<b>Comments</b>
<b>CTE, linear, Parallel to Flow</b>	500 µm/m-°C @Temperature -40.0 - 30.0 °C	278 µin/in-°F @Temperature -40.0 - 86.0 °F	ISO 11359-1/-2
	500 µm/m-°C @Temperature 105 - 150 °C	278 µin/in-°F @Temperature 221 - 302 °F	ISO 11359-1/-2
	500 µm/m-°C @Temperature 23.0 - 55.0 °C	278 µin/in-°F @Temperature 73.4 - 131 °F	ISO 11359-1/-2
	500 µm/m-°C @Temperature 60.0 - 105 °C	278 µin/in-°F @Temperature 140 - 221 °F	ISO 11359-1/-2
<b>CTE, linear, Transverse to Flow</b>	120 µm/m-°C @Temperature 23.0 - 55.0 °C	66.7 µin/in-°F @Temperature 73.4 - 131 °F	ISO 11359-1/-2

Thermal Properties	Metric	English	Comments ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	162 °C	324 °F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	94.0 °C	201 °F	ISO 75-1/-2

Processing Properties	Metric	English	Comments
Melt Temperature	215 °C	419 °F	Optimum; Injection Molding
	210 - 220 °C	410 - 428 °F	Injection Molding
Mold Temperature	90.0 °C	194 °F	optimum; Injection Molding
	80.0 - 100 °C	176 - 212 °F	Injection Molding
Drying Temperature	80.0 °C	176 °F	Injection Molding
Dry Time	2.00 - 4.00 hour	2.00 - 4.00 hour	Injection Molding
Moisture Content	<= 0.20 %	<= 0.20 %	Injection Molding

Descriptive Properties	Value	Comments
Appearance	Natural Color	
Features	Creep Resistance, Good	
	Dimensional Stability, Good	
	Fatigue Resistant	
	Homopolymer	
	Stiffness, High	
	Strength, High	
	Viscosity, Low	
Forms	Pellets	
Generic	Acetal (POM) Homopolymer	
Material Status	Preliminary Data	
Part Marking Code	>POM<	ISO 11469
Processing Method	Injection Molding	
Product Category	Food Contact Resins	

Descriptive Properties	Unreinforced Resins Value	Comments
Region Available - Global	Yes	
Resin Identification	POM	ISO 1043
RoHS Compliance	Contact Manufacturer	
Uses	Food Applications, Non-specific	
	Gears	
	General Purpose	
	Parts, Engineering	
	Parts, Thin-walled	

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