

DuPont Performance Polymers Delrin® FG150 NC010 Acetal Homopolymer (Unverified Data**)

Category : Polymer , Thermoplastic , Acetal (POM)

Material Notes:

Delrin® FG150 NC010 is a high viscosity acetal homopolymer for extrusion processes. It has low die deposit and low porosity. It has been developed for consideration in applications and 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-FG150-NC010-Acetal-Homopolymer-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Density	1.42 g/cc	0.0513 lb/in ³	ISO 1183
Water Absorption	0.39 % @Temperature 23.0 °C	0.39 % @Temperature 73.4 °F	Immersion 24h; ISO 62, Similar to
Linear Mold Shrinkage, Flow	0.018 cm/cm @Thickness 2.00 mm	0.018 in/in @Thickness 0.0787 in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.020 cm/cm @Thickness 2.00 mm	0.020 in/in @Thickness 0.0787 in	ISO 294-4
Melt Flow	2.4 g/10 min @Load 2.16 kg, Temperature 190 °C	2.4 g/10 min @Load 4.76 lb, Temperature 374 °F	ISO 1133
Melt Index of Compound	1.9 g/10 min @Load 2.16 kg, Temperature 190 °C	1.9 g/10 min @Load 4.76 lb, Temperature 374 °F	cm ³ /10 min; ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	72.0 MPa @Temperature 23.0 °C	10400 psi @Temperature 73.4 °F	ISO 527
Elongation at Break	40 % @Temperature 23.0 °C	40 % @Temperature 73.4 °F	nominal; ISO 527
Elongation at Yield	22 % @Temperature 23.0 °C	22 % @Temperature 73.4 °F	ISO 527
Tensile Modulus	3.10 GPa @Temperature 23.0 °C	450 ksi @Temperature 73.4 °F	ISO 527
	2.90 GPa	421 ksi	

Flexural Modulus Mechanical Properties	Metric @ Temperature 23.0 °C	English @ Temperature 73.4 °F	ISO 178 Comments
Charpy Impact, Notched	0.900 J/cm ²	4.28 ft-lb/in ²	ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	1.20 J/cm ²	5.71 ft-lb/in ²	ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	500 µm/m-°C	278 µin/in-°F	ISO 11359-1/-2
	@Temperature -40.0 - 23.0 °C	@Temperature -40.0 - 73.4 °F	
	500 µm/m-°C	278 µin/in-°F	
	@Temperature 23.0 - 55.0 °C	@Temperature 73.4 - 131 °F	ISO 11359-1/-2
	500 µm/m-°C	278 µin/in-°F	ISO 11359-1/-2
	@Temperature 55.0 - 100 °C	@Temperature 131 - 212 °F	
90.0 µm/m-°C	50.0 µin/in-°F	ISO 11359-1/-2	
@Temperature -40.0 - 23.0 °C	@Temperature -40.0 - 73.4 °F		
100 µm/m-°C	55.6 µin/in-°F		ISO 11359-1/-2
@Temperature 23.0 - 55.0 °C	@Temperature 73.4 - 131 °F		
150 µm/m-°C	83.3 µin/in-°F	ISO 11359-1/-2	
@Temperature 55.0 - 100 °C	@Temperature 131 - 212 °F		
Melting Point	178 °C		352 °F
Deflection Temperature at 0.46 MPa (66 psi)	165 °C	329 °F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	97.0 °C	207 °F	ISO 75-1/-2

Processing Properties	Metric	English	Comments
Melt Temperature	195 - 205 °C	383 - 401 °F	Extrusion
	200 °C	392 °F	Optimum; Extrusion
	215 °C	419 °F	Optimum; Injection Molding
	210 - 220 °C	410 - 428 °F	Injection Molding

Processing Properties	Metric	English	Comments
Mold Temperature	80.0 °C	176 °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 %	Extrusion
	<= 0.20 %	<= 0.20 %	Injection Molding

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

Descriptive Properties	Value	Comments
Resin Identification	POM	ISO 1043
RoHS Compliance	Contact Manufacturer	
Uses	Food Applications, Non-specific	
	Parts, Engineering	
	Sheet	
	Tubing	

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