

DuPont Performance Polymers Delrin® 500T BK602 Acetal Homopolymer (Unverified Data**)

Category : Polymer , Thermoplastic , Acetal (POM)

Material Notes:

Delrin® 500T BK602 is a toughened, medium viscosity acetal homopolymer resin with impact resistance similar to Delrin® 100. It can be used in parts requiring noise reduction. Information provided by DuPont Performance Polymers

Order this product through the following link:

http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Delrin-500T-BK602-Acetal-Homopolymer-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Density	1.39 g/cc	0.0502 lb/in ³	ISO 1183
Linear Mold Shrinkage, Flow	0.015 cm/cm @Thickness 2.00 mm	0.015 in/in @Thickness 0.0787 in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.015 cm/cm @Thickness 2.00 mm	0.015 in/in @Thickness 0.0787 in	ISO 294-4
Melt Flow	12 g/10 min @Load 2.16 kg, Temperature 190 °C	12 g/10 min @Load 4.76 lb, Temperature 374 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	54.0 MPa @Temperature 23.0 °C	7830 psi @Temperature 73.4 °F	ISO 527
Elongation at Break	28 % @Temperature 23.0 °C	28 % @Temperature 73.4 °F	nominal; ISO 527
	45 % @Temperature 23.0 °C	45 % @Temperature 73.4 °F	50mm/min; ISO 527
Elongation at Yield	17 % @Temperature 23.0 °C	17 % @Temperature 73.4 °F	ISO 527
Tensile Modulus	2.20 GPa @Temperature 23.0 °C	319 ksi @Temperature 73.4 °F	ISO 527
Flexural Strength	60.0 MPa @Strain 3.50 %, Temperature 23.0 °C	8700 psi @Strain 3.50 %, Temperature 73.4 °F	ISO 178
	2.00 GPa	290 ksi	

Flexural Modulus Mechanical Properties	Metric @ Temperature 23.0 °C	English @ Temperature 73.4 °F	ISO 178 Comments
Izod Impact, Notched (ISO)	9.00 kJ/m ²	4.28 ft-lb/in ²	ISO 180/1A
	@Temperature -40.0 °C	@Temperature -40.0 °F	
	12.0 kJ/m ²	5.71 ft-lb/in ²	ISO 180/1A
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Charpy Impact, Notched	0.700 J/cm ²	3.33 ft-lb/in ²	ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	1.30 J/cm ²	6.19 ft-lb/in ²	ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
Melting Point	178 °C	352 °F	10°C/min; ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	146 °C	295 °F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	76.0 °C	169 °F	ISO 75-1/-2
UL RTI, Electrical	105 °C	221 °F	UL 746B
	@Thickness 3.00 mm	@Thickness 0.118 in	
	105 °C	221 °F	UL 746B
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	105 °C	221 °F	UL 746B
	@Thickness 0.750 mm	@Thickness 0.0295 in	
UL RTI, Mechanical with Impact	85.0 °C	185 °F	UL 746B
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	85.0 °C	185 °F	UL 746B
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	85.0 °C	185 °F	UL 746B
	@Thickness 3.00 mm	@Thickness 0.118 in	
UL RTI, Mechanical without Impact	85.0 °C	185 °F	UL 746B
	@Thickness 3.00 mm	@Thickness 0.118 in	
	85.0 °C	185 °F	UL 746B
	@Thickness 1.50 mm	@Thickness 0.0591 in	

Thermal Properties	^{85.0 °C} Metric	^{185 °F} English	Comments
	@Thickness 0.750 mm	@Thickness 0.0295 in	
Flammability, UL94	HB	HB	UL94
	@Thickness 0.750 mm	@Thickness 0.0295 in	
	HB	HB	UL94
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	HB	HB	UL94
	@Thickness 3.00 mm	@Thickness 0.118 in	
	HB	HB	IEC 60695-11-10
	@Thickness 3.00 mm	@Thickness 0.118 in	
	HB	HB	IEC 60695-11-10
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	HB	HB	IEC 60695-11-10
	@Thickness 0.750 mm	@Thickness 0.0295 in	

Processing Properties	Metric	English	Comments
Melt Temperature	200 - 210 °C	392 - 410 °F	Injection Molding
	205 °C	401 °F	Optimum; Injection Molding
Mold Temperature	50.0 °C	122 °F	optimum; Injection Molding
	40.0 - 60.0 °C	104 - 140 °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	<= 0.050 %	<= 0.050 %	Injection Molding

Descriptive Properties	Value	Comments
Additive	Impact Modifier	
Appearance	Black Color	
Drying Recommended	Yes, if moisture content of resin exceeds recommended level	
Extrudable - Tubing	Yes	
Extrudable - Wire and Cable	Yes	
Features	Homopolymer	

Descriptive Properties	Value Impact Modified	Comments
	Impact Resistance, High	
	Toughness, Good	
	Viscosity, Medium	
Forms	Pellets	
Generic	Acetal (POM) Homopolymer	
Material Status	Current	
Part Marking Code	>POM-I<	ISO 11469
Polymer Family	POM	
Polymer Type	POM Homopolymer	
Processing Method	Injection Molding	
Product Category	Toughened Resins	
	Unreinforced Resins	
Region Available - Global	Yes	
Resin Identification	POM-I	ISO 1043
RoHS Compliance	Contact Manufacturer	
Ultrasonic Weldable	Yes	
Uses	Parts, Engineering	

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