

## DuPont Performance Polymers Delrin® 500P BK602 Acetal (POM) (Unverified Data\*\*)

Category : Polymer , Thermoplastic , Acetal (POM) , Acetal Homopolymer, Unreinforced

### Material Notes:

Medium Viscosity Acetal Homopolymer with Improved Processing Delrin 500P BK602 is a general purpose medium viscosity black acetal homopolymer resin for injection molding. Delrin 500P has improved processing thermal stability compared to Delrin 500. Information provided by DuPont Performance Polymers

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_DuPont-Performance-Polymers-Delrin-500P-BK602-Acetal-POM-nbspUnverified-Data.php](http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Delrin-500P-BK602-Acetal-POM-nbspUnverified-Data.php)

Physical Properties	Metric	English	Comments
Density	1.42 g/cc	0.0513 lb/in <sup>3</sup>	ISO 1183
Melt Flow	15 g/10 min @Load 2.16 kg, Temperature 190 °C	15 g/10 min @Load 4.76 lb, Temperature 374 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Tensile Stress	16.5 MPa @Strain 0.500 %, Temperature 23.0 °C	2390 psi @Strain 0.500 %, Temperature 73.4 °F	ISO 11403-1 -2
	33.4 MPa @Strain 0.900 %, Temperature -40.0 °C	4840 psi @Strain 0.900 %, Temperature -40.0 °F	ISO 11403-1 -2
	47.5 MPa @Strain 2.30 %, Temperature 23.0 °C	6890 psi @Strain 2.30 %, Temperature 73.4 °F	ISO 11403-1 -2
	59.6 MPa @Strain 4.00 %, Temperature 23.0 °C	8640 psi @Strain 4.00 %, Temperature 73.4 °F	ISO 11403-1 -2
	64.6 MPa @Strain 6.00 %, Temperature 23.0 °C	9370 psi @Strain 6.00 %, Temperature 73.4 °F	ISO 11403-1 -2
	80.4 MPa @Strain 3.70 %, Temperature -40.0 °C	11700 psi @Strain 3.70 %, Temperature -40.0 °F	ISO 11403-1 -2
	90.2 MPa @Strain 6.00 %, Temperature -40.0 °C	13100 psi @Strain 6.00 %, Temperature -40.0 °F	ISO 11403-1 -2

Mechanical Properties	Metric	English	Comments
	93.3 MPa	13500 psi	
	@Strain 9.00 %, Temperature -40.0 °C	@Strain 9.00 %, Temperature -40.0 °F	ISO 11403-1 -2
Tensile Strength, Yield	71.0 MPa	10300 psi	ISO 527-1/-2
Elongation at Break	25 %	25 %	Nominal; ISO 527-1/-2
Elongation at Yield	14 %	14 %	ISO 527-1/-2
Tensile Modulus	3.10 GPa	450 ksi	ISO 527-1/-2
Flexural Modulus	3.00 GPa	435 ksi	ISO 178
Secant Modulus	0.314 GPa	45.6 ksi	
	@Strain 8.50 %, Temperature 100 °C	@Strain 8.50 %, Temperature 212 °F	ISO 11403-1 -2
	0.494 GPa	71.6 ksi	
	@Strain 5.00 %, Temperature 100 °C	@Strain 5.00 %, Temperature 212 °F	ISO 11403-1 -2
	0.500 GPa	72.5 ksi	
	@Strain 7.00 %, Temperature 80.0 °C	@Strain 7.00 %, Temperature 176 °F	ISO 11403-1 -2
	0.614 GPa	89.1 ksi	
	@Strain 3.50 %, Temperature 100 °C	@Strain 3.50 %, Temperature 212 °F	ISO 11403-1 -2
	0.636 GPa	92.2 ksi	
	@Strain 15.0 %, Temperature -40.0 °C	@Strain 15.0 %, Temperature -40.0 °F	ISO 11403-1 -2
	0.7575 GPa	109.9 ksi	
	@Strain 4.00 %, Temperature 80.0 °C	@Strain 4.00 %, Temperature 176 °F	ISO 11403-1 -2
	0.812 GPa	118 ksi	
	@Strain 1.70 %, Temperature 100 °C	@Strain 1.70 %, Temperature 212 °F	ISO 11403-1 -2
	0.83125 GPa	120.56 ksi	
	@Strain 8.00 %, Temperature 23.0 °C	@Strain 8.00 %, Temperature 73.4 °F	ISO 11403-1 -2
	0.850 GPa	123 ksi	
	@Strain 0.400 %, Temperature 100 °C	@Strain 0.400 %, Temperature 212 °F	ISO 11403-1 -2

Mechanical Properties	0.857 GPa Metric	124 ksi English	Comments ISO 11403-1 -2
	@Strain 11.0 %, Temperature -40.0 °C	@Strain 11.0 %, Temperature -40.0 °F	
	1.045 GPa	151.6 ksi	ISO 11403-1 -2
	@Strain 2.00 %, Temperature 80.0 °C	@Strain 2.00 %, Temperature 176 °F	
	1.31 GPa	191 ksi	ISO 11403-1 -2
	@Strain 7.00 %, Temperature -40.0 °C	@Strain 7.00 %, Temperature -40.0 °F	
	1.33 GPa	194 ksi	ISO 11403-1 -2
	@Strain 4.60 %, Temperature 23.0 °C	@Strain 4.60 %, Temperature 73.4 °F	
	1.42 GPa	206 ksi	ISO 11403-1 -2
	@Strain 0.500 %, Temperature 80.0 °C	@Strain 0.500 %, Temperature 176 °F	
	2.07 GPa	300 ksi	ISO 11403-1 -2
	@Strain 2.30 %, Temperature 23.0 °C	@Strain 2.30 %, Temperature 73.4 °F	
	2.17 GPa	315 ksi	ISO 11403-1 -2
	@Strain 3.70 %, Temperature -40.0 °C	@Strain 3.70 %, Temperature -40.0 °F	
	3.30 GPa	479 ksi	ISO 11403-1 -2
	@Strain 0.500 %, Temperature 23.0 °C	@Strain 0.500 %, Temperature 73.4 °F	
	3.71 GPa	538 ksi	ISO 11403-1 -2
	@Strain 0.900 %, Temperature -40.0 °C	@Strain 0.900 %, Temperature -40.0 °F	
Izod Impact, Notched (ISO)	8.00 kJ/m <sup>2</sup>	3.81 ft-lb/in <sup>2</sup>	ISO 180/1A
	8.00 kJ/m <sup>2</sup>	3.81 ft-lb/in <sup>2</sup>	ISO 180/1A
	@Temperature -40.0 °C	@Temperature -40.0 °F	
Charpy Impact Unnotched	18.0 J/cm <sup>2</sup>	85.7 ft-lb/in <sup>2</sup>	ISO 179/1eU
Charpy Impact, Notched	0.800 J/cm <sup>2</sup>	3.81 ft-lb/in <sup>2</sup>	ISO 179/1eA
	0.700 J/cm <sup>2</sup>	3.33 ft-lb/in <sup>2</sup>	ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	

Thermal Properties	Metric	English	Comments
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CTE, linear, Parallel to Flow Thermal Properties	Metric	English	Comments
CTE, linear, Transverse to Flow	115 µm/m-°C	63.9 µin/in-°F	ISO 11359-1/-2
Melting Point	178 °C	352 °F	10°C/min; 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)	96.0 °C	205 °F	ISO 75-1/-2
Flammability, UL94	HB	HB	IEC 60695-11-10
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	HB	HB	IEC 60695-11-10
	@Thickness 0.800 mm	@Thickness 0.0315 in	

Electrical Properties	Metric	English	Comments
Comparative Tracking Index	600 V	600 V	IEC 60112

Descriptive Properties	Value	Comments
Additives	Lubricants	
	Release agent	
Delivery Form	Pellets	
Part Marking Code	>POM<	ISO 11469
Processing	Injection Moulding	
Regional Availability	Asia Pacific	
	Europe	
	Global	
	Near East/Africa	
	North America	
	South and Central America	
Resin Identification	POM	ISO 1043
UL recognition	UL	

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