DuPont Performance Polymers Delrin® 100 BK602 Acetal (POM) (Unverified Data**)

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

Material Notes:

High Viscosity Acetal Homopolymer Delrin 100 is a high viscosity acetal homopolymer for use in easy to fill molds. Delrin 100 provides maximum toughness in the product line without modification and optimum mechanical performance.Information provided by DuPont Performance Polymers

Order this product through the following link:
http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Delrin-100-BK602-Acetal-POM-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Density	1.19 g/cc	0.0430 lb/in³	
	1.42 g/cc	0.0513 lb/in³	ISO 1183
Viscosity	135800 cP @Shear Rate 5000 1/s, Temperature 230 °C	135800 cP @Shear Rate 5000 1/s, Temperature 446 °F	ISO 11403-1 -2
	156200 cP @Shear Rate 5000 1/s, Temperature 215 °C	156200 cP @Shear Rate 5000 1/s, Temperature 419 °F	ISO 11403-1 -2
	164900 cP @Shear Rate 5000 1/s, Temperature 200 °C	164900 cP @Shear Rate 5000 1/s, Temperature 392 °F	ISO 11403-1 -2
	678700 cP @Shear Rate 500 1/s, Temperature 230 °C	678700 cP @Shear Rate 500 1/s, Temperature 446 °F	ISO 11403-1 -2
	697510 cP @Shear Rate 500 1/s, Temperature 215 °C	697510 cP @Shear Rate 500 1/s, Temperature 419 °F	ISO 11403-1 -2
	769600 cP @Shear Rate 500 1/s, Temperature 200 °C	769600 cP @Shear Rate 500 1/s, Temperature 392 °F	ISO 11403-1 -2
Linear Mold Shrinkage, Flow	0.022 cm/cm	0.022 in/in	ISO 294-4 2577
Linear Mold Shrinkage, Transverse	0.018 cm/cm	0.018 in/in	ISO 294-4 2577
Melt Flow	1.9 g/10 min @Load 2.16 kg, Temperature 190 °C	1.9 g/10 min @Load 4.76 lb, Temperature 374 °F	cm³/10min; ISO 1133

Physical Properties	Metric	English	Comments
	2.2 g/10 min @Load 2.16 kg, Temperature 190 °C	2.2 g/10 min @Load 4.76 lb, Temperature 374 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	91	91	ISO 2039-2
Hardness, Rockwell R	121	121	ISO 2039-2
Tensile Stress	7.10 MPa @Strain 0.500 %, Temperature 90.0 °C	1030 psi @Strain 0.500 %, Temperature 194 °F	ISO 11403-1 -2
	21.4 MPa @Strain 2.10 %, Temperature 90.0 °C	3100 psi @Strain 2.10 %, Temperature 194 °F	ISO 11403-1 -2
	29.0 MPa @Strain 3.70 %, Temperature 90.0 °C	4210 psi @Strain 3.70 %, Temperature 194 °F	ISO 11403-1 -2
	31.3 MPa @Strain 1.10 %, Temperature 23.0 °C	4540 psi @Strain 1.10 %, Temperature 73.4 °F	ISO 11403-1 -2
	31.9 MPa @Strain 5.00 %, Temperature 90.0 °C	4630 psi @Strain 5.00 %, Temperature 194 °F	ISO 11403-1 -2
	53.9 MPa @Strain 2.40 %, Temperature 0.000 °C	7820 psi @Strain 2.40 %, Temperature 32.0 °F	ISO 11403-1 -2
	60.4 MPa @Strain 1.70 %, Temperature -40.0 °C	8760 psi @Strain 1.70 %, Temperature -40.0 °F	ISO 11403-1 -2
	62.0 MPa @Strain 4.50 %, Temperature 23.0 °C	8990 psi @Strain 4.50 %, Temperature 73.4 °F	ISO 11403-1 -2
	66.1 MPa @Strain 7.00 %, Temperature 23.0 °C	9590 psi @Strain 7.00 %, Temperature 73.4 °F	ISO 11403-1 -2
	68.0 MPa @Strain 11.0 %, Temperature 23.0 °C	9860 psi @Strain 11.0 %, Temperature 73.4 °F	ISO 11403-1 -2

Mechanical Properties	Metric	English	Comments
	76.5 MPa @Strain 9.00 %, Temperature 0.000 °C	11100 psi @Strain 9.00 %, Temperature 32.0 °F	ISO 11403-1 -2
	78.9 MPa @Strain 17.0 %, Temperature 0.000 °C	11400 psi @Strain 17.0 %, Temperature 32.0 °F	ISO 11403-1 -2
	79.7 MPa @Strain 24.0 %, Temperature 0.000 °C	11600 psi @Strain 24.0 %, Temperature 32.0 °F	ISO 11403-1 -2
	93.0 MPa @Strain 6.00 %, Temperature -40.0 °C	13500 psi @Strain 6.00 %, Temperature -40.0 °F	ISO 11403-1 -2
	96.0 MPa @Strain 11.0 %, Temperature -40.0 °C	13900 psi @Strain 11.0 %, Temperature -40.0 °F	ISO 11403-1 -2
	97.6 MPa @Strain 18.0 %, Temperature -40.0 °C	14200 psi @Strain 18.0 %, Temperature -40.0 °F	ISO 11403-1 -2
Tensile Strength, Yield	72.0 MPa	10400 psi	ISO 527-1/-2
Elongation at Break	>= 50 %	>= 50 %	Nominal; ISO 527-1/-2
Elongation at Yield	23 %	23 %	ISO 527-1/-2
Tensile Modulus	3.15 GPa	457 ksi	ISO 527-1/-2
Flexural Modulus	0.0800 GPa	11.6 ksi	ASTM D790
	2.90 GPa	421 ksi	ISO 178
Secant Modulus	0.276 GPa @Strain 29.0 %, Temperature 0.000 °C	40.1 ksi @Strain 29.0 %, Temperature 32.0 °F	ISO 11403-1 -2
	0.303 GPa @Strain 32.5 %, Temperature -40.0 °C	43.9 ksi @Strain 32.5 %, Temperature -40.0 °F	ISO 11403-1 -2
	0.321 GPa @Strain 21.4 %, Temperature 23.0 °C	46.6 ksi @Strain 21.4 %, Temperature 73.4 °F	ISO 11403-1 -2
	0.417 GPa @Strain 19.0 %, Temperature 0.000 °C	60.5 ksi @Strain 19.0 %, Temperature 32.0 °F	ISO 11403-1 -2

Mechanical Properties	Metric	English	Comments
	@Strain 23.0 %, Temperature -40.0 °C	@Strain 23.0 %, Temperature -40.0 °F	ISO 11403-1 -2
	0.526 GPa @Strain 13.0 %, Temperature 23.0 °C	76.3 ksi @Strain 13.0 %, Temperature 73.4 °F	ISO 11403-1 -2
	0.744 GPa @Strain 13.0 %, Temperature -40.0 °C	108 ksi @Strain 13.0 %, Temperature -40.0 °F	ISO 11403-1 -2
	0.749 GPa @Strain 9.00 %, Temperature 23.0 °C	109 ksi @Strain 9.00 %, Temperature 73.4 °F	ISO 11403-1 -2
	0.850 GPa @Strain 9.00 %, Temperature 0.000 °C	123 ksi @Strain 9.00 %, Temperature 32.0 °F	ISO 11403-1 -2
	1.38 GPa @Strain 4.50 %, Temperature 23.0 °C	200 ksi @Strain 4.50 %, Temperature 73.4 °F	ISO 11403-1 -2
	1.55 GPa @Strain 6.00 %, Temperature -40.0 °C	225 ksi @Strain 6.00 %, Temperature -40.0 °F	ISO 11403-1 -2
	2.25 GPa @Strain 2.40 %, Temperature 0.000 °C	326 ksi @Strain 2.40 %, Temperature 32.0 °F	ISO 11403-1 -2
	2.85 GPa @Strain 1.10 %, Temperature 23.0 °C	413 ksi @Strain 1.10 %, Temperature 73.4 °F	ISO 11403-1 -2
	3.55 GPa @Strain 1.70 %, Temperature -40.0 °C	515 ksi @Strain 1.70 %, Temperature -40.0 °F	ISO 11403-1 -2
Izod Impact, Notched (ISO)	11.0 kJ/m²	5.23 ft-lb/in²	ISO 180/1A
	10.0 kJ/m² @Temperature -40.0 °C	4.76 ft-lb/in² @Temperature -40.0 °F	ISO 180/1A
Charpy Impact, Notched	1.20 J/cm²	5.71 ft-lb/in²	ISO 179/1eA
	1.05 J/cm² @Temperature -30.0 °C	5.00 ft-lb/in² @Temperature -22.0 °F	ISO 179/1eA

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	110 µm/m-°C	61.1 µin/in-°F	ISO 11359-1/-2
	100 µm/m-°C @Temperature -40.0 - 23.0 °C	55.6 µin/in-°F @Temperature -40.0 - 73.4 °F	ISO 11359-1/-2
CTE, linear, Transverse to Flow	110 µm/m-°C	61.1 µin/in-°F	ISO 11359-1/-2
	100 µm/m-°C @Temperature -40.0 - 23.0 °C	55.6 µin/in-°F @Temperature -40.0 - 73.4 °F	ISO 11359-1/-2

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+15 ohm-cm	>= 1.00e+15 ohm-cm	IEC 60093
Surface Resistance	>= 1.00e+15 ohm	>= 1.00e+15 ohm	IEC 60093
Dielectric Constant	3.9 @Frequency 1.00e+6 Hz	3.9 @Frequency 1.00e+6 Hz	IEC 60250
	4.0 @Frequency 100 Hz	4.0 @Frequency 100 Hz	IEC 60250
Dielectric Strength	45.0 kV/mm	1140 kV/in	IEC 60243-1
Dissipation Factor	0.00050 @Frequency 100 Hz	0.00050 @Frequency 100 Hz	IEC 60250
	0.0060 @Frequency 1.00e+6 Hz	0.0060 @Frequency 1.00e+6 Hz	IEC 60250
Comparative Tracking Index	600 V	600 V	IEC 60112

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com
Email : sales@lookpolymers.com
Tel : +86 021-51131842
Mobile : +86 13061808058
Skype : lookpolymers
Address : United North Road 215,Fengxian District, Shanghai City,China