

DuPont Performance Polymers Delrin® 100T NC010 Acetal (POM) (Unverified Data**)

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

Material Notes:

Toughened High Viscosity Acetal Homopolymer Delrin 100T NC010 is a toughened high viscosity acetal homopolymer grade with high impact resistance. Information provided by DuPont Performance Polymers

Order this product through the following link:

http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Delrin-100T-NC010-Acetal-POM-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Density	1.37 g/cc	0.0495 lb/in³	ISO 1183
Water Absorption	0.90 % @Thickness 2.00 mm	0.90 % @Thickness 0.0787 in	Sim. to ISO 62
Moisture Absorption	0.300 % @Thickness 2.00 mm	0.300 % @Thickness 0.0787 in	Sim. to ISO 62
Viscosity	165000 cP @Shear Rate 5000 1/s, Temperature 220 °C	165000 cP @Shear Rate 5000 1/s, Temperature 428 °F	ISO 11403-1 -2
	187000 cP @Shear Rate 5000 1/s, Temperature 205 °C	187000 cP @Shear Rate 5000 1/s, Temperature 401 °F	ISO 11403-1 -2
	214000 cP @Shear Rate 5000 1/s, Temperature 190 °C	214000 cP @Shear Rate 5000 1/s, Temperature 374 °F	ISO 11403-1 -2
	781000 cP @Shear Rate 500 1/s, Temperature 220 °C	781000 cP @Shear Rate 500 1/s, Temperature 428 °F	ISO 11403-1 -2
	917000 cP @Shear Rate 500 1/s, Temperature 205 °C	917000 cP @Shear Rate 500 1/s, Temperature 401 °F	ISO 11403-1 -2
	1.082e+6 cP @Shear Rate 500 1/s, Temperature 190 °C	1.082e+6 cP @Shear Rate 500 1/s, Temperature 374 °F	ISO 11403-1 -2
Linear Mold Shrinkage, Flow	0.015 cm/cm	0.015 in/in	ISO 294-4 2577
Linear Mold Shrinkage, Transverse	0.016 cm/cm	0.016 in/in	ISO 294-4 2577

Physical Properties Melt Flow	2.0 g/10 min Metric	2.0 g/10 min English	Comments cm ³ /10min; ISO 1133
	@Load 2.16 kg, Temperature 190 °C	@Load 4.76 lb, Temperature 374 °F	
	2.1 g/10 min	2.1 g/10 min	ISO 1133
	@Load 2.16 kg, Temperature 190 °C	@Load 4.76 lb, Temperature 374 °F	

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	59	59	ISO 2039-2
Hardness, Rockwell R	113	113	ISO 2039-2
Tensile Stress	8.50 MPa	1230 psi	ISO 11403-1 -2
	@Strain 1.60 %, Temperature 90.0 °C	@Strain 1.60 %, Temperature 194 °F	
	19.3 MPa	2800 psi	ISO 11403-1 -2
	@Strain 6.50 %, Temperature 90.0 °C	@Strain 6.50 %, Temperature 194 °F	
	22.0 MPa	3190 psi	ISO 11403-1 -2
	@Strain 1.90 %, Temperature 40.0 °C	@Strain 1.90 %, Temperature 104 °F	
	22.9 MPa	3320 psi	ISO 11403-1 -2
	@Strain 11.4 %, Temperature 90.0 °C	@Strain 11.4 %, Temperature 194 °F	
	23.7 MPa	3440 psi	ISO 11403-1 -2
	@Strain 16.3 %, Temperature 90.0 °C	@Strain 16.3 %, Temperature 194 °F	
	29.0 MPa	4210 psi	ISO 11403-1 -2
	@Strain 2.50 %, Temperature 23.0 °C	@Strain 2.50 %, Temperature 73.4 °F	
	36.0 MPa	5220 psi	ISO 11403-1 -2
	@Strain 2.60 %, Temperature 0.000 °C	@Strain 2.60 %, Temperature 32.0 °F	
	40.0 MPa	5800 psi	ISO 11403-1 -2
	@Strain 7.60 %, Temperature 40.0 °C	@Strain 7.60 %, Temperature 104 °F	
	40.0 MPa	5800 psi	ISO 11403-1 -2
	@Strain 2.30 %, Temperature -20.0 °C	@Strain 2.30 %, Temperature -4.00 °F	

Mechanical Properties	44.0 MPa Metric	6380 psi English	Comments ISO 11403-1 -2
	@Strain 13.3 %, Temperature 40.0 °C	@Strain 13.3 %, Temperature 104 °F	
	44.7 MPa	6480 psi	ISO 11403-1 -2
	@Strain 21.0 %, Temperature 40.0 °C	@Strain 21.0 %, Temperature 104 °F	
	48.7 MPa	7060 psi	ISO 11403-1 -2
	@Strain 10.2 %, Temperature 23.0 °C	@Strain 10.2 %, Temperature 73.4 °F	
	50.9 MPa	7380 psi	ISO 11403-1 -2
	@Strain 17.8 %, Temperature 23.0 °C	@Strain 17.8 %, Temperature 73.4 °F	
	51.2 MPa	7430 psi	ISO 11403-1 -2
	@Strain 25.4 %, Temperature 23.0 °C	@Strain 25.4 %, Temperature 73.4 °F	
	56.1 MPa	8140 psi	ISO 11403-1 -2
	@Strain 10.6 %, Temperature 0.000 °C	@Strain 10.6 %, Temperature 32.0 °F	
	58.3 MPa	8460 psi	ISO 11403-1 -2
	@Strain 18.5 %, Temperature 0.000 °C	@Strain 18.5 %, Temperature 32.0 °F	
	58.6 MPa	8500 psi	ISO 11403-1 -2
	@Strain 26.4 %, Temperature 0.000 °C	@Strain 26.4 %, Temperature 32.0 °F	
	63.9 MPa	9270 psi	ISO 11403-1 -2
	@Strain 9.20 %, Temperature -20.0 °C	@Strain 9.20 %, Temperature -4.00 °F	
	67.0 MPa	9720 psi	ISO 11403-1 -2
	@Strain 16.2 %, Temperature -20.0 °C	@Strain 16.2 %, Temperature -4.00 °F	
	67.8 MPa	9830 psi	ISO 11403-1 -2
	@Strain 23.1 %, Temperature -20.0 °C	@Strain 23.1 %, Temperature -4.00 °F	
Tensile Strength, Yield	55.0 MPa	7980 psi	ISO 527-1/-2
Elongation at Break	>= 50 %	>= 50 %	Nominal; ISO 527-1/-2
Elongation at Yield	25 %	25 %	ISO 527-1/-2
Tensile Modulus	1.90 GPa	276 ksi	ISO 527-1/-2

Mechanical Properties	Metric	English	Comments
Shear Modulus	0.115 GPa	16.7 ksi	Dynamic; ISO 11403-1 -2
	@Temperature 120 °C	@Temperature 248 °F	
	0.262 GPa	38.0 ksi	Dynamic; ISO 11403-1 -2
	@Temperature 70.0 °C	@Temperature 158 °F	
	0.514 GPa	74.6 ksi	Dynamic; ISO 11403-1 -2
	@Temperature 20.0 °C	@Temperature 68.0 °F	
Secant Modulus	0.729 GPa	106 ksi	Dynamic; ISO 11403-1 -2
	@Temperature -20.0 °C	@Temperature -4.00 °F	
	1.166 GPa	169.1 ksi	Dynamic; ISO 11403-1 -2
	@Temperature -50.0 °C	@Temperature -58.0 °F	
	0.252 GPa	36.5 ksi	ISO 11403-1 -2
	@Strain 20.3 %, Temperature 23.0 °C	@Strain 20.3 %, Temperature 73.4 °F	
	0.277 GPa	40.2 ksi	ISO 11403-1 -2
	@Strain 21.1 %, Temperature 0.000 °C	@Strain 21.1 %, Temperature 32.0 °F	
	0.293 GPa	42.5 ksi	ISO 11403-1 -2
	@Strain 15.2 %, Temperature 40.0 °C	@Strain 15.2 %, Temperature 104 °F	
	0.365 GPa	52.9 ksi	ISO 11403-1 -2
	@Strain 18.5 %, Temperature -20.0 °C	@Strain 18.5 %, Temperature -4.00 °F	
	0.477 GPa	69.2 ksi	ISO 11403-1 -2
	@Strain 10.2 %, Temperature 23.0 °C	@Strain 10.2 %, Temperature 73.4 °F	
	0.526 GPa	76.3 ksi	ISO 11403-1 -2
	@Strain 7.60 %, Temperature 40.0 °C	@Strain 7.60 %, Temperature 104 °F	
	0.529 GPa	76.8 ksi	ISO 11403-1 -2
	@Strain 10.6 %, Temperature 0.000 °C	@Strain 10.6 %, Temperature 32.0 °F	
	0.695 GPa	101 ksi	ISO 11403-1 -2
	@Strain 9.20 %, Temperature -20.0 °C	@Strain 9.20 %, Temperature -4.00 °F	

Mechanical Properties	Metric	English	Comments
	@Strain 1.90 %, Temperature 40.0 °C	@Strain 1.90 %, Temperature 104 °F	ISO 11403-1 -2
	1.16 GPa	168 ksi	
	@Strain 2.50 %, Temperature 23.0 °C	@Strain 2.50 %, Temperature 73.4 °F	ISO 11403-1 -2
	1.38 GPa	201 ksi	
	@Strain 2.60 %, Temperature 0.000 °C	@Strain 2.60 %, Temperature 32.0 °F	ISO 11403-1 -2
	1.74 GPa	252 ksi	
	@Strain 2.30 %, Temperature -20.0 °C	@Strain 2.30 %, Temperature -4.00 °F	ISO 11403-1 -2
Charpy Impact Unnotched	NB	NB	ISO 179/1eU
	NB	NB	ISO 179/1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact, Notched	2.50 J/cm ²	11.9 ft-lb/in ²	ISO 179/1eA
	1.30 J/cm ²	6.19 ft-lb/in ²	ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	120 µm/m-°C	66.7 µin/in-°F	ISO 11359-1/-2
CTE, linear, Transverse to Flow	120 µm/m-°C	66.7 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)	130 °C	266 °F	ISO 75-1/-2

Electrical Properties	Metric	English	Comments
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