

## DuPont Performance Polymers Delrin® FG100AL NC010 Acetal (POM) (Unverified Data\*\*)

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

### Material Notes:

Lubricated High Viscosity Acetal Homopolymer with Low Wear and Low Friction Developed for Food Contact Applications Delrin FG100AL is a high viscosity lubricated acetal homopolymer resin containing an advanced system of lubrication. It has been developed Information provided by DuPont Performance Polymers

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_DuPont-Performance-Polymers-Delrin-FG100AL-NC010-Acetal-POM-nbspUnverified-Data.php](http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Delrin-FG100AL-NC010-Acetal-POM-nbspUnverified-Data.php)

Physical Properties	Metric	English	Comments
Density	1.40 g/cc	0.0506 lb/in <sup>3</sup>	ISO 1183
Viscosity	111000 cP	111000 cP	ISO 11403-1 -2
	@Shear Rate 5000 1/s, Temperature 230 °C	@Shear Rate 5000 1/s, Temperature 446 °F	
	129000 cP	129000 cP	ISO 11403-1 -2
	@Shear Rate 5000 1/s, Temperature 215 °C	@Shear Rate 5000 1/s, Temperature 419 °F	
	152000 cP	152000 cP	ISO 11403-1 -2
	@Shear Rate 5000 1/s, Temperature 200 °C	@Shear Rate 5000 1/s, Temperature 392 °F	
Linear Mold Shrinkage, Flow	432000 cP	432000 cP	ISO 11403-1 -2
	@Shear Rate 500 1/s, Temperature 230 °C	@Shear Rate 500 1/s, Temperature 446 °F	
	502000 cP	502000 cP	ISO 11403-1 -2
Linear Mold Shrinkage, Transverse	@Shear Rate 500 1/s, Temperature 215 °C	@Shear Rate 500 1/s, Temperature 419 °F	
	593000 cP	593000 cP	ISO 11403-1 -2
Melt Flow	@Shear Rate 500 1/s, Temperature 200 °C	@Shear Rate 500 1/s, Temperature 392 °F	
	0.020 cm/cm	0.020 in/in	ISO 294-4 2577
	0.018 cm/cm	0.018 in/in	ISO 294-4 2577
	2.5 g/10 min	2.5 g/10 min	ISO 1133
	@Load 2.16 kg, Temperature 190 °C	@Load 4.76 lb, Temperature 374 °F	

Mechanical Properties	Metric	English	Comments
Tensile Stress	44.9 MPa	6510 psi	ISO 11403-1 -2
	@Strain 2.20 %, Temperature 23.0 °C	@Strain 2.20 %, Temperature 73.4 °F	
	57.6 MPa	8350 psi	ISO 11403-1 -2
	@Strain 1.80 %, Temperature -40.0 °C	@Strain 1.80 %, Temperature -40.0 °F	
	64.5 MPa	9350 psi	ISO 11403-1 -2
	@Strain 8.00 %, Temperature 23.0 °C	@Strain 8.00 %, Temperature 73.4 °F	
	65.6 MPa	9510 psi	ISO 11403-1 -2
	@Strain 15.0 %, Temperature 23.0 °C	@Strain 15.0 %, Temperature 73.4 °F	
	94.1 MPa	13600 psi	ISO 11403-1 -2
	@Strain 7.00 %, Temperature -40.0 °C	@Strain 7.00 %, Temperature -40.0 °F	
	96.0 MPa	13900 psi	ISO 11403-1 -2
	@Strain 13.0 %, Temperature -40.0 °C	@Strain 13.0 %, Temperature -40.0 °F	
Tensile Strength, Yield	70.0 MPa	10200 psi	ISO 527-1/-2
Elongation at Break	45 %	45 %	Nominal; ISO 527-1/-2
Elongation at Yield	18 %	18 %	ISO 527-1/-2
Tensile Modulus	3.00 GPa	435 ksi	ISO 527-1/-2
Flexural Modulus	2.80 GPa	406 ksi	ISO 178
Secant Modulus	0.141 GPa	20.4 ksi	ISO 11403-1 -2
	@Strain 19.0 %, Temperature 100 °C	@Strain 19.0 %, Temperature 212 °F	
	0.192 GPa	27.8 ksi	ISO 11403-1 -2
	@Strain 19.0 %, Temperature 80.0 °C	@Strain 19.0 %, Temperature 176 °F	
	0.286 GPa	41.4 ksi	ISO 11403-1 -2
	@Strain 9.00 %, Temperature 100 °C	@Strain 9.00 %, Temperature 212 °F	
	0.386 GPa	56.1 ksi	ISO 11403-1 -2
	@Strain 17.0 %, Temperature 23.0 °C	@Strain 17.0 %, Temperature 73.4 °F	

Mechanical Properties	Metric $\mu\text{Pa}$	English	Comments
	@Strain 9.00 %, Temperature 80.0 °C	@Strain 9.00 %, Temperature 176 °F	ISO 11403-1 -2
	0.640 GPa	92.8 ksi	
	@Strain 15.0 %, Temperature -40.0 °C	@Strain 15.0 %, Temperature -40.0 °F	ISO 11403-1 -2
	0.80625 GPa	116.94 ksi	
	@Strain 8.00 %, Temperature 23.0 °C	@Strain 8.00 %, Temperature 73.4 °F	ISO 11403-1 -2
	0.854 GPa	124 ksi	
	@Strain 2.40 %, Temperature 100 °C	@Strain 2.40 %, Temperature 212 °F	ISO 11403-1 -2
	1.14 GPa	166 ksi	
	@Strain 2.40 %, Temperature 80.0 °C	@Strain 2.40 %, Temperature 176 °F	ISO 11403-1 -2
	1.34 GPa	195 ksi	
	@Strain 7.00 %, Temperature -40.0 °C	@Strain 7.00 %, Temperature -40.0 °F	ISO 11403-1 -2
	2.04 GPa	296 ksi	
	@Strain 2.20 %, Temperature 23.0 °C	@Strain 2.20 %, Temperature 73.4 °F	ISO 11403-1 -2
	3.20 GPa	464 ksi	
	@Strain 1.80 %, Temperature -40.0 °C	@Strain 1.80 %, Temperature -40.0 °F	ISO 11403-1 -2
Izod Impact, Notched (ISO)	8.00 kJ/m <sup>2</sup>	3.81 ft-lb/in <sup>2</sup>	ISO 180/1A
Charpy Impact Unnotched	25.0 J/cm <sup>2</sup>	119 ft-lb/in <sup>2</sup>	ISO 179/1eU
	17.0 J/cm <sup>2</sup>	80.9 ft-lb/in <sup>2</sup>	
	@Temperature -30.0 °C	@Temperature -22.0 °F	ISO 179/1eU
Charpy Impact, Notched	0.900 J/cm <sup>2</sup>	4.28 ft-lb/in <sup>2</sup>	ISO 179/1eA
	0.700 J/cm <sup>2</sup>	3.33 ft-lb/in <sup>2</sup>	
	@Temperature -30.0 °C	@Temperature -22.0 °F	ISO 179/1eA

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	110 $\mu\text{m}/\text{m}\cdot\text{°C}$	61.1 $\mu\text{in}/\text{in}\cdot\text{°F}$	ISO 11359-1/-2
CTE, linear, Transverse to Flow	110 $\mu\text{m}/\text{m}\cdot\text{°C}$	61.1 $\mu\text{in}/\text{in}\cdot\text{°F}$	ISO 11359-1/-2

<b>Melting Point</b> Thermal Properties	<b>178 °C</b> Metric	<b>352 °F</b> English	<b>10°C/min: ISO 11357-1/-3</b> Comments
Deflection Temperature at 0.46 MPa (66 psi)	163 °C	325 °F	ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	97.0 °C	207 °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	

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

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

**Tel : +86 021-51131842**

**Mobile : +86 13061808058**

**Skype : lookpolymers**

**Address : United North Road 215,Fengxian District, Shanghai City,China**