

Delrin® 100ST NC010

ACETAL RESIN

DuPont Performance Polymers

Message:

Super Toughened High Viscosity Acetal Homopolymer

General Information			
UL YellowCard	E41938-257617		
Additive	Lubricant Mold Release		
Features	Lubricated		
Uses	Blow Molding Applications Profiles Sheet		
Agency Ratings	UL Unspecified Rating		
Forms	Pellets		
Processing Method	Blow Molding Coating Extrusion Injection Molding Profile Extrusion Sheet Extrusion		
Multi-Point Data	Isothermal Stress vs. Strain (ISO 11403-1) Secant Modulus vs. Strain (ISO 11403-1) Shear Modulus vs. Temperature (ISO 11403-1) Shear Stress vs. Shear Rate (ISO 11403-1) Specific Volume vs Temperature (ISO 11403-2) Tensile Modulus vs. Temperature, Dynamic (ISO 11403-1) Viscosity vs. Shear Rate (ISO 11403-2)		
Part Marking Code (ISO 11469)	>POM-HI<		
Resin ID (ISO 1043)	POM-HI		
Physical	Nominal Value	Unit	Test Method
Density	1.34	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	2.0	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	1.70	cm ³ /10min	ISO 1133

Molding Shrinkage			ISO 294-4
Across Flow	1.4	%	
Flow	1.3	%	
Water Absorption			ISO 62
23°C, 24 hr, 2.00 mm	0.90	%	
Equilibrium, 23°C, 2.00 mm, 50% RH	0.35	%	
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ISO 2039-2
M-Scale	58		
R-Scale	105		
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1400	MPa	ISO 527-2
Tensile Stress (Yield)	41.0	MPa	ISO 527-2
Tensile Strain (Yield)	30	%	ISO 527-2
Nominal Tensile Strain at Break	> 50	%	ISO 527-2
Tensile Creep Modulus			ISO 899-1
1 hr	1100	MPa	
1000 hr	550	MPa	
Flexural Modulus	1100	MPa	ISO 178
Flexural Stress (3.5% Strain)	34.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	20	kJ/m ²	
23°C	90	kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	No Break		
23°C	No Break		
Notched Izod Impact Strength			ISO 180/1A
-40°C	20	kJ/m ²	
23°C	90	kJ/m ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, Unannealed	100	°C	ISO 75-2/B
1.8 MPa, Unannealed	60.0	°C	ISO 75-2/A
Glass Transition Temperature ¹	-35.0	°C	ISO 11357-2
Melting Temperature ²	178	°C	ISO 11357-3
CLTE			ISO 11359-2
Flow	1.3E-4	cm/cm/°C	
Transverse	1.4E-4	cm/cm/°C	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	1.0E+14	ohms	IEC 60093
Volume Resistivity	1.0E+14	ohms · cm	IEC 60093

Relative Permittivity		IEC 60250	
100 Hz	4.40		
1 MHz	3.80		
Comparative Tracking Index	600	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Burning Rate (1.00 mm)	60	mm/min	ISO 3795
Flammability Classification (1.50 mm)	HB		IEC 60695-11-10, -20
Additional Information	Nominal Value	Unit	Test Method
Emission	< 8.00	mg/kg	VDA 275
NOTE			
1.	10°C/min		
2.	10°C/min		

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Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

