

# Delrin® 150 NC010

ACETAL RESIN

DuPont Performance Polymers

# PROSPECTOR®

www.ulprospector.com

## Technical Data

### Product Description

Nucleated High Viscosity Acetal Homopolymer Developed for Extrusion

### General

Material Status	• Commercial: Active
Literature <sup>1</sup>	• Processing - Injection Molding (English) • Typical Processing for DuPont Engineering Polymers (English) • White Paper - Property Advantages of Delrin® Acetal Homopolymer - a guide for design engineers (English)
UL Yellow Card <sup>2</sup>	• E41938-511978
Search for UL Yellow Card	• DuPont Performance Polymers • Delrin®
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Additive	• Mold Release • Nucleating Agent
Features	• High Viscosity • Nucleated
RoHS Compliance	• Contact Manufacturer
Forms	• Pellets
Processing Method	• Extrusion • Injection Molding • Profile Extrusion • Sheet Extrusion
Multi-Point Data	• Isothermal Stress vs. Strain (ISO 11403-1) • Secant Modulus vs. Strain (ISO 11403-1)
Part Marking Code (ISO 11469)	• >POM<
Resin ID (ISO 1043)	• POM

Physical	Nominal Value Unit	Test Method
Density	1.42 g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR)	2.4 g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	1.90 cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage		ISO 294-4
Across Flow	2.0 %	
Flow	1.8 %	

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus	3100 MPa	ISO 527-2
Tensile Stress (Yield)	72.0 MPa	ISO 527-2
Tensile Strain (Yield)	22 %	ISO 527-2
Nominal Tensile Strain at Break	40 %	ISO 527-2
Flexural Modulus	2900 MPa	ISO 178

Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength		ISO 179/1eA
-30°C	9.0 kJ/m <sup>2</sup>	
23°C	12 kJ/m <sup>2</sup>	
Notched Izod Impact Strength (23°C)	10 kJ/m <sup>2</sup>	ISO 180/1A

Hardness	Nominal Value Unit	Test Method
Rockwell Hardness		ISO 2039-2
M-Scale	94	
R-Scale	122	

Thermal	Nominal Value Unit	Test Method
Heat Deflection Temperature		
0.45 MPa, Unannealed	165 °C	ISO 75-2/B
1.8 MPa, Unannealed	97.0 °C	ISO 75-2/A
Melting Temperature <sup>4</sup>	178 °C	ISO 11357-3



Thermal	Nominal Value Unit	Test Method
CLTE		ISO 11359-2
Flow	1.1E-4 cm/cm/°C	
Transverse	1.0E-4 cm/cm/°C	
Annealing Temperature	160 °C	
Annealing Time - Optional	30.0 min/mm	
Flammability	Nominal Value Unit	Test Method
Burning Rate <sup>5</sup> (1.00 mm)	< 100 mm/min	ISO 3795
Flame Rating (1.50 mm)	HB	UL 94 IEC 60695-11-10, -20
Additional Information	Nominal Value Unit	Test Method
Emission	< 8.00 mg/kg	VDA 275
Injection	Nominal Value Unit	
Drying Temperature	80.0 °C	
Drying Time	2.0 to 4.0 hr	
Suggested Max Moisture	0.20 %	
Processing (Melt) Temp	210 to 220 °C	
Melt Temperature, Optimum	215 °C	
Mold Temperature	80.0 to 100 °C	
Mold Temperature, Optimum	90 °C	
Holding Pressure	90.0 to 110 MPa	
Drying Recommended	yes	
Hold Pressure Time	7.50 s/mm	
Extrusion	Nominal Value Unit	
Drying Temperature	75.0 to 85.0 °C	
Drying Time	2.0 to 4.0 hr	
Suggested Max Moisture	0.20 %	
Melt Temperature	195 to 205 °C	
Extrusion Melt Temperature, Optimum	200 °C	

**Notes**

<sup>1</sup> These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

<sup>2</sup> A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

<sup>3</sup> Typical properties: these are not to be construed as specifications.

<sup>4</sup> 10°C/min

<sup>5</sup> FMVSS 302



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## Where to Buy

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### Supplier

#### DuPont Performance Polymers

Wilmington, DE USA  
**Telephone:** 302-999-4592  
**Web:** <http://plastics.dupont.com/>

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### Distributor

#### Biesterfeld Plastic GmbH

*Biesterfeld Plastic GmbH is a Pan European distribution company. Contact Biesterfeld Plastic GmbH for availability of individual products by country.*

**Telephone:** +49-40-32008-0

**Web:** <http://www.biesterfeld-plastic.com/>

**Availability:** Algeria, Austria, Belgium, Bosnia and Herzegovina, Brazil, Bulgaria, Croatia, Cyprus, Czech Republic, Egypt, France, Germany, Greece, Hungary, Italy, Libyan Arab Jamahiriya, Luxembourg, Mauritania, Morocco, Netherlands, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Switzerland, Tunisia, Turkey

#### CCC Plastics

**Telephone:** 800-465-6917

**Web:** <http://www.cccplastics.com/>

**Availability:** Canada

#### Distrupol Ltd

*Distrupol Ltd is a Pan European distribution company. Contact Distrupol Ltd for availability of individual products by country.*

**Telephone:** 08452003040

**Web:** <http://www.distrupol.com/>

**Availability:** Denmark, Finland, Ireland, Norway, Sweden, United Kingdom

#### PolyOne Distribution

*PolyOne Distribution is a global distribution company. Contact PolyOne Distribution for availability of individual products by country.*

**Telephone:** 800-894-4266

**Web:** <http://polyonedistribution.com/>

**Availability:** Global

