Delrin® 900P NC010
ACETAL RESIN
DuPont Performance Polymers

Technical Data

Product Description
Low Viscosity Acetal Homopolymer with Improved Processing

General
Material Status
• Commercial: Active

Literature
• Processing - Injection Molding (English)
• Typical Processing for DuPont Engineering Polymers (English)

UL Yellow Card
• E41938-257616

Search for UL Yellow Card
• DuPont Performance Polymers
• Delrin®

Availability
• Africa & Middle East
• Asia Pacific
• Europe
• Latin America
• North America

Additive
• Lubricant

Features
• Lubricated

Agency Ratings
• UL Unspecified Rating

Forms
• Pellets

Processing Method
• Injection Molding

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)
• Viscosity vs. Shear Rate (ISO 11403-2)

Part Marking Code (ISO 11469)
> POM <

Resin ID (ISO 1043)
• POM

Physical
Nominal Value Unit Test Method
Density 1.42 g/cm³ ISO 1183
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg) 25 g/10 min ISO 1133
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg) 21.0 cm³/10min ISO 1133
Molding Shrinkage
Across Flow 1.9 % ISO 294-4
Flow 1.9 %
Water Absorption
23°C, 24 hr, 2.00 mm 1.4 % ISO 62
Equilibrium, 23°C, 2.00 mm, 50% RH 0.30 %

Mechanical
Nominal Value Unit Test Method
Tensile Modulus 3300 MPa ISO 527-2
Tensile Stress (Yield) 71.0 MPa ISO 527-2
Tensile Strain (Yield) 12 % ISO 527-2
Nominal Tensile Strain at Break 23 % ISO 527-2
Tensile Creep Modulus
1 hr 2800 MPa ISO 899-1
1000 hr 1500 MPa
Flexural Modulus 3000 MPa ISO 178

Impact
Nominal Value Unit Test Method
Charpy Notched Impact Strength
-30°C 7.0 kJ/m² ISO 179/1eA
23°C 8.0 kJ/m²
Charpy Unnotched Impact Strength
-30°C 200 kJ/m² ISO 179/1eU
23°C 200 kJ/m²
### Impact

<table>
<thead>
<tr>
<th>Property</th>
<th>Nominal Value</th>
<th>Unit</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notched Izod Impact Strength</td>
<td></td>
<td></td>
<td>ISO 180/1A</td>
</tr>
<tr>
<td>-40°C</td>
<td>8.0</td>
<td>kJ/m²</td>
<td></td>
</tr>
<tr>
<td>23°C</td>
<td>7.0</td>
<td>kJ/m²</td>
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### Hardness

<table>
<thead>
<tr>
<th>Property</th>
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<tbody>
<tr>
<td>Rockwell Hardness</td>
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<tr>
<td>M-Scale</td>
<td>92</td>
<td></td>
<td>ISO 2039-2</td>
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<tr>
<td>R-Scale</td>
<td>120</td>
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### Thermal

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<th>Unit</th>
<th>Test Method</th>
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<tbody>
<tr>
<td>Heat Deflection Temperature 0.45 MPa, Unannealed</td>
<td>162 °C</td>
<td></td>
<td>ISO 75-2/B</td>
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<tr>
<td>Heat Deflection Temperature 1.8 MPa, Unannealed</td>
<td>94.0 °C</td>
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<td>ISO 75-2/A</td>
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<tr>
<td>Vicat Softening Temperature</td>
<td>160 °C</td>
<td></td>
<td>ISO 306/B50</td>
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<tr>
<td>Melting Temperature 4</td>
<td>178 °C</td>
<td></td>
<td>ISO 11357-3</td>
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<tr>
<td>CLTE Flow: 23 to 55°C</td>
<td>1.0E-4 cm/cm/°C</td>
<td></td>
<td>ASTM E831</td>
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<tr>
<td>CLTE Flow: 1.2E-4 cm/cm/°C</td>
<td></td>
<td></td>
<td>ISO 11359-2</td>
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<tr>
<td>CLTE Transverse: 1.2E-4 cm/cm/°C</td>
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<td>ISO 11359-2</td>
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### Electrical

<table>
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<th>Property</th>
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<tbody>
<tr>
<td>Surface Resistivity</td>
<td>&gt; 1.0E+15 ohms</td>
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<td>IEC 60093</td>
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<tr>
<td>Volume Resistivity</td>
<td>1.0E+14 ohms/cm</td>
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<td>IEC 60093</td>
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<tr>
<td>Relative Permittivity</td>
<td></td>
<td></td>
<td>IEC 60250</td>
</tr>
<tr>
<td>100 Hz</td>
<td>3.80</td>
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<td></td>
</tr>
<tr>
<td>1 MHz</td>
<td>3.80</td>
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<tr>
<td>Comparative Tracking Index</td>
<td>600 V</td>
<td></td>
<td>IEC 60112</td>
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<tr>
<td>Hot-wire Ignition (HWI) (0.750 mm)</td>
<td>8.0 sec</td>
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<td>UL 746</td>
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<tr>
<td>Flammability Classification 0.800 mm</td>
<td>HB</td>
<td></td>
<td>IEC 60695-11-10, -20</td>
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<tr>
<td>Flammability Classification 1.50 mm</td>
<td>HB</td>
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<tr>
<td>Oxygen Index</td>
<td>23 %</td>
<td></td>
<td>ASTM D2863</td>
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</tbody>
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### Notes

1. 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.
2. 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.
3. Typical properties: these are not to be construed as specifications.
4. 10°C/min
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ACETAL RESIN
DuPont Performance Polymers

Where to Buy

Supplier
DuPont Performance Polymers
Wilmington, DE USA
Telephone: 302-999-4592
Web: http://plastics.dupont.com/

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

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