# Delrin®

acetal resin

## Delrin® 507 NC010

Delrin® 507 NC010 is a medium viscosity acetal homopolymer with UV stabilizers.

| Property | Test Method | Units | Value |
|---|---|---|---|
| **Mechanical** | | | |
| Yield Stress | ISO 527-1/-2 | MPa | 72 |
| Yield Strain | ISO 527-1/-2 | % | 15 |
| Nominal Strain at Break | ISO 527-1/-2 | % | 30 |
| Strain at Break | ISO 527-1/-2 | % | |
| 50mm/min | | | 45 |
| Tensile Modulus | ISO 527-1/-2 | MPa | 3200 |
| Tensile Creep Modulus | ISO 899 | MPa | |
| 1h | | | 2800 |
| 1000h | | | 1700 |
| Flexural Modulus | ISO 178 | MPa | 3000 |
| Notched Izod Impact | ISO 180/1A | kJ/m2 | |
| -40C | | | 6 |
| 23C | | | 8 |
| Notched Charpy Impact | ISO 179/1eA | kJ/m2 | |
| -30C | | | 8 |
| 23C | | | 9 |
| **Thermal** | | | |
| Deflection Temperature | ISO 75-1/-2 | °C | |
| 0.45MPa | | | 165 |
| 1.80MPa | | | 100 |
| 1.80MPa, Annealed | | | 115 |
| Melting Temperature | ISO 3146C | °C | 178 |
| Vicat Softening Temperature | ISO 306 | °C | |
| 50N | | | 160 |

Contact DuPont for MSDS, general guides and/or additional information about ventilation, handling, purging, drying, etc.

Mechanical properties measured at 23°C (73°F) unless otherwise stated.

020702/991018

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|---|---|---|---|
| **Flow** | | | |
| Melt Flow Rate | ISO 1133 | g/10 min | |
| 190C, 2.16kg | | | 14 |
| **Electrical** | | | |
| Surface Resistivity | IEC 60093 | ohm | |
| 1mm | | | >1E15 |
| Relative Permittivity | IEC 60250 | | |
| 1E2 Hz, 1mm | | | 3.8 |
| 1E6 Hz, 1mm | | | 3.8 |
| Volume Resistivity | IEC 60093 | ohm cm | |
| 1mm | | | 1E15 |
| Dissipation Factor | IEC 60250 | E-4 | |
| 1E2 Hz, 1mm | | | 15 |
| 1E6 Hz, 1mm | | | 50 |
| Electric Strength | IEC 60243-1 | kV/mm | |
| 1mm | | | 32 |
| CTI | IEC 60112 | V | |
| 1mm | | | 600 |
| **Flammability** | | | |
| Flammability Classification | UL94 | | |
| 0.8mm(0.032in)bar | | | HB |
| 1.5mm | | | HB |
| 3.0mm | | | HB |
| **Other** | | | |
| Density | ISO 1183 | kg/m3 | 1420 |
| Hardness, Rockwell | ISO 2039/2 | | M92 |
| Humidity Absorption | ISO 62, Similar to | % | |
| Equilibrium 50%RH | | | 0.22 |
| Water Absorption | ISO 62, Similar to | % | |
| Saturation, immersed | | | 0.9 |
| **Processing** | | | |
| Melt Temperature Range | | °C | 210-220 |
| Melt Temperature Optimum | | °C | 215 |
| Drying Time, Dehumidified Dryer | | h | 2-4 |
| Drying Temperature | | °C | 80 |
| Processing Moisture Content | | % | <0.2 |

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