



# Delrin®

acetal resin

## Delrin® 507 NC010

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

Property	Test Method	Units	Value
<b>Mechanical</b>			
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
<b>Thermal</b>			
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

The information provided in this data sheet corresponds to our knowledge on the subject at the date of its publication. This information may be subject to revision as new knowledge and experience becomes available. The data provided fall within the normal range of product properties and relate only to the specific material designated; these data may not be valid for such material used in combination with any other materials or additives or in any process, unless expressly indicated otherwise. The data provided should not be used to establish specification limits or used alone as the basis of design; they are not intended to substitute for any testing you may need to conduct to determine for yourself the suitability of a specific material for your particular purposes. Since DuPont cannot anticipate all variations in actual end-use conditions DuPont makes no warranties and assumes no liability in connection with any use of this information. Nothing in this publication is to be considered as a license to operate under or a recommendation to infringe any patent rights. Caution: Do not use this product in medical applications involving permanent implantation in the human body. For other medical applications see "DuPont Medical Caution Statement", H-51459 or H-50102.

**Start with DuPont Engineering Polymers - [www.dupont.com/enggpolymer](http://www.dupont.com/enggpolymer)**

# Delrin® 507 NC010

Property	Test Method	Units	Value
<b>Flow</b>			
Melt Flow Rate 190C, 2.16kg	ISO 1133	g/10 min	14
<b>Electrical</b>			
Surface Resistivity 1mm	IEC 60093	ohm	>1E15
Relative Permittivity 1E2 Hz, 1mm	IEC 60250		3.8
1E6 Hz, 1mm			3.8
Volume Resistivity 1mm	IEC 60093	ohm cm	1E15
Dissipation Factor 1E2 Hz, 1mm	IEC 60250	E-4	15
1E6 Hz, 1mm			50
Electric Strength 1mm	IEC 60243-1	kV/mm	32
CTI 1mm	IEC 60112	V	600
<b>Flammability</b>			
Flammability Classification 0.8mm(0.032in)bar	UL94		HB
1.5mm			HB
3.0mm			HB
<b>Other</b>			
Density	ISO 1183	kg/m3	1420
Hardness, Rockwell	ISO 2039/2		M92
Humidity Absorption Equilibrium 50%RH	ISO 62, Similar to	%	0.22
Water Absorption Saturation, immersed	ISO 62, Similar to	%	0.9
<b>Processing</b>			
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

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

The information provided in this data sheet corresponds to our knowledge on the subject at the date of its publication. This information may be subject to revision as new knowledge and experience becomes available. The data provided fall within the normal range of product properties and relate only to the specific material designated; these data may not be valid for such material used in combination with any other materials or additives or in any process, unless expressly indicated otherwise. The data provided should not be used to establish specification limits or used alone as the basis of design; they are not intended to substitute for any testing you may need to conduct to determine for yourself the suitability of a specific material for your particular purposes. Since DuPont cannot anticipate all variations in actual end-use conditions DuPont makes no warranties and assumes no liability in connection with any use of this information. Nothing in this publication is to be considered as a license to operate under or a recommendation to infringe any patent rights. Caution: Do not use this product in medical applications involving permanent implantation in the human body. For other medical applications see "DuPont Medical Caution Statement", H-51459 or H-50102.

**Start with DuPont Engineering Polymers - [www.dupont.com/enggpolymer](http://www.dupont.com/enggpolymer)**