



# Delrin®

acetal resin

## Delrin® 500T NC010

Delrin® 500T NC010 is a toughened, medium viscosity grade with impact resistance similar to Delrin® 100. It can be used in parts requiring noise reduction.

Property	Test Method	Units	Value
<b>Mechanical</b>			
Yield Stress	ISO 527-1/-2	MPa	58
Yield Strain	ISO 527-1/-2	%	16
Nominal Strain at Break	ISO 527-1/-2	%	30
Strain at Break	ISO 527-1/-2	%	
50mm/min			55
Tensile Modulus	ISO 527-1/-2	MPa	2500
Tensile Creep Modulus	ISO 899	MPa	
1h			2300
1000h			1150
Flexural Modulus	ISO 178	MPa	2100
Notched Izod Impact	ISO 180/1A	kJ/m2	
-40C			8
23C			14
Notched Charpy Impact	ISO 179/1eA	kJ/m2	
-30C			12
23C			15
Unnotched Charpy Impact	ISO 179/1eU	kJ/m2	
-30C			340
23C			NB
<b>Thermal</b>			
Deflection Temperature	ISO 75-1/-2	°C	
0.45MPa			155
1.80MPa			80
1.80MPa, Annealed			90
Melting Temperature	ISO 3146C	°C	178
Vicat Softening Temperature	ISO 306	°C	
50N			139

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.

030424/991018

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Property	Test Method	Units	Value
<b>Flow</b>			
Melt Flow Rate 190C, 2.16kg	ISO 1133	g/10 min	12
<b>Electrical</b>			
Surface Resistivity 1mm	IEC 60093	ohm	1E15
Relative Permittivity 1E2 Hz, 1mm	IEC 60250		3.6
1E6 Hz, 1mm			3.6
Volume Resistivity 1mm	IEC 60093	ohm cm	>1E15
Dissipation Factor 1E6 Hz, 1mm	IEC 60250	E-4	160
CTI 1mm	IEC 60112	V	600
<b>Flammability</b>			
Flammability Classification 0.8mm(0.032in)bar	UL94		HB
1.5mm			HB
3.0mm			HB
Limited Oxygen Index	ISO 4589	%	23
<b>Other</b>			
Density	ISO 1183	kg/m3	1390
Hardness, Rockwell	ISO 2039/2		R117
Humidity Absorption Equilibrium 50%RH	ISO 62, Similar to	%	0.2
Water Absorption Saturation, immersed	ISO 62, Similar to	%	0.8
<b>Processing</b>			
Melt Temperature Range		°C	200-210
Melt Temperature Optimum		°C	205
Drying Time, Dehumidified Dryer		h	2-4
Drying Temperature		°C	80
Processing Moisture Content		%	<0.05
Hold Pressure Range		MPa	60-80

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