



Delrin®

acetal resin

Delrin 500 NC010

Delrin® 500 NC010 is a medium viscosity resin for general purpose use. Delrin® provides optimum mechanical performance.

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	%	45
Tensile Modulus	ISO 527-1/-2	MPa	3200
Tensile Creep Modulus	ISO 899	MPa	
1h			2900
1000h			1700
Flexural Modulus	ISO 178	MPa	3000
Notched Izod Impact	ISO 180/1A	kJ/m2	
-40C			9
23C			9
Notched Charpy Impact	ISO 179/1eA	kJ/m2	
-30C			8
23C			9
Unnotched Charpy Impact	ISO 179/1eU	kJ/m2	
-30C			300
23C			340
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.

030421/991018

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Property	Test Method	Units	Value
Flow			
Melt Flow Rate 190C, 2.16kg	ISO 1133	g/10 min	14
Electrical			
Surface Resistivity 1mm	IEC 60093	ohm	>1E15
Relative Permittivity 1E2 Hz, 1mm	IEC 60250		3.4
1E6 Hz, 1mm			3.3
Volume Resistivity 1mm	IEC 60093	ohm cm	1E15
Dissipation Factor 1E2 Hz, 1mm	IEC 60250	E-4	100
1E6 Hz, 1mm			70
Electric Strength 1mm	IEC 60243-1	kV/mm	32
CTI 1mm	IEC 60112	V	600
Flammability			
Flammability Classification 0.8mm(0.032in)bar	UL94		HB
1.5mm			HB
3.0mm			HB
Limited Oxygen Index	ISO 4589	%	23
Other			
Density	ISO 1183	kg/m3	1420
Hardness, Rockwell	ISO 2039/2		R120
Humidity Absorption Equilibrium 50%RH	ISO 62, Similar to	%	0.22
Water Absorption Saturation, immersed	ISO 62, Similar to	%	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
Hold Pressure Range		MPa	80-100

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