

# DuPont™ Delrin®

acetal resin

PRELIMINARY DATA

## Delrin® 100T NC010

Delrin® 100T NC010 is a toughened, high viscosity acetal homopolymer grade with high impact resistance.

Property	Test Method	Units	Value
<b>Identification</b>			
Resin Identification	ISO 1043		POM-I
Part Marking Code	ISO 11469		>POM-I<
<b>Mechanical</b>			
Yield Stress	ISO 527	MPa (kpsi)	52 (7.5)
Yield Strain	ISO 527	%	25
Strain at Break	ISO 527	%	
50mm/min			>50
Nominal Strain at Break	ISO 527	%	>50
Tensile Modulus	ISO 527	MPa (kpsi)	1900 (276)
Flexural Modulus	ISO 178	MPa (kpsi)	1700 (245)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m <sup>2</sup>	
-30°C (-22°F)			13
23°C (73°F)			25
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m <sup>2</sup>	
-30°C (-22°F)			NB
23°C (73°F)			NB

Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc.  
 ISO Mechanical properties measured at 4.0mm, ISO Electrical properties measured at 2.0mm, and all ASTM properties measured at 3.2mm.  
 Test temperatures are 23°C unless otherwise stated.

**The above data are preliminary and are subject to change as additional data are developed on subsequent lots.**

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060126/060126

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Property	Test Method	Units	Value
<b>Thermal</b>			
Deflection Temperature 0.45MPa	ISO 75f	°C (°F)	130 (265)
1.80MPa			72 (160)
Melting Temperature 10°C/min	ISO 11357-1/-3	°C (°F)	178 (352)
CLTE, Parallel 23 - 55°C (73 - 130°F)	ISO 11359-1/-2	E-4/C (E-4/F)	1.2 (0.67)
<b>Rheological</b>			
Melt Mass-Flow Rate 190°C, 2.16kg	ISO 1133	g/10 min	2.0
<b>Electrical</b>			
Relative Permittivity 1E6 Hz	IEC 60250		3.1
Dissipation Factor 1E6 Hz	IEC 60250	E-4	90
CTI	IEC 60112	V	600
<b>Other</b>			
Density	ISO 1183	kg/m <sup>3</sup> (g/cm <sup>3</sup> )	1370 (1.37)
Hardness, Rockwell Scale M	ISO 2039/2		59
Scale R			113
Water Absorption Equilibrium 50%RH	ISO 62, Similar to	%	0.3
Saturation, immersed			0.9
Molding Shrinkage Normal, 2.0mm	ISO 294-4	%	1.9
Parallel, 2.0mm			2.1

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Property	Test Method	Units	Value
<b>Processing</b>			
Melt Temperature Range		°C (°F)	200-210 (390-410)
Melt Temperature Optimum		°C (°F)	205 (400)
Mold Temperature Range		°C (°F)	40-60 (100-140)
Mold Temperature Optimum		°C (°F)	50 (122)
Drying Time, Dehumidified Dryer		h	2-4
Drying Temperature		°C (°F)	80 (175)
Processing Moisture Content		%	<0.05
Hold Pressure Range		MPa (kpsi)	60-80 (9-12)

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