

**DuPont™ Zytel®**

**nylon resin**

## Zytel® 122L NC010

Zytel® 122L NC010 is a lubricated polyamide 66 resin with improved hydrolysis and oxidative properties.

Property	Test Method	Units	Value	
			DAM	50%RH
<b>Identification</b>				
Resin Identification	ISO 1043		PA66	
Part Marking Code	ISO 11469		>PA66<	
<b>Mechanical</b>				
Yield Stress	ISO 527	MPa (kpsi)	83 (12)	59 (8.6)
Strain at Break	ISO 527	%		
50mm/min			60	>60
Nominal Strain at Break	ISO 527	%	20	>50
Yield Strain	ISO 527	%		25
Tensile Modulus	ISO 527	MPa (kpsi)	3100 (450)	1400 (203)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m <sup>2</sup>		
-30°C (-22°F)			5	3
23°C (73°F)			6	14
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m <sup>2</sup>		
-30°C (-22°F)			NB	NB
23°C (73°F)			NB	NB
<b>Thermal</b>				
Deflection Temperature	ISO 75f	°C (°F)		
1.80MPa			70 (158)	
Melting Temperature	ISO 11357-1/-3	°C (°F)		
10°C/min			263 (505)	
CLTE, Normal	ISO 11359-1/-2	E-4/C (E-4/F)		
23 - 55°C (73 - 130°F)			1.21 (0.68)	
CLTE, Parallel	ISO 11359-1/-2	E-4/C (E-4/F)		
23 - 55°C (73 - 130°F)			1.21 (0.68)	
Vicat Softening Temperature	ISO 306	°C (°F)		
50N			241 (466)	

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.

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			DAM	50%RH
<b>Electrical</b>				
CTI	UL 746A	V		
3.0mm			600	
<b>Flammability</b>				
Flammability Classification	IEC 60695-11-10			
0.75mm			HB	
1.5mm			HB	
3.0mm			HB	
6.0mm			HB	
Flammability Classification	UL94			
0.75mm			HB	
1.5mm			HB	
3.0mm			HB	
6.0mm			HB	
High Amperage Arc Ignition Resistance	UL 746A	arcs		
1.5mm			120	
3.0mm			120	
6.0mm			120	
Hot Wire Ignition	UL 746A	s		
1.5mm			15	
3.0mm			30	
6.0mm			30	

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Property	Test Method	Units	Value	
			DAM	50%RH
<b>Temperature Index</b>				
RTI, Electrical	UL 746B	°C		
0.75mm			65	
1.5mm			125	
3.0mm			125	
6.0mm			125	
RTI, Impact	UL 746B	°C		
0.75mm			65	
1.5mm			75	
3.0mm			75	
6.0mm			75	
RTI, Strength	UL 746B	°C		
0.75mm			65	
1.5mm			85	
3.0mm			85	
6.0mm			85	
<b>Other</b>				
Density	ISO 1183	kg/m <sup>3</sup> (g/cm <sup>3</sup> )	1140 (1.14)	
Water Absorption	ISO 62, Similar to	%		
Equilibrium 50%RH			2.7	
Saturation, immersed			8.5	
Molding Shrinkage	ISO 294-4	%		
Normal, 2.0mm			1.3	
Parallel, 2.0mm			1.3	
Mold Shrinkage		%		
Flow, 1.6mm (0.062in)			1.4	
Flow, 3.2mm (0.126in)			1.6	

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			DAM	50%RH
<b>Processing</b>				
Melt Temperature Range		°C (°F)	280-300 (535-570)	
Melt Temperature Optimum		°C (°F)	290 (555)	
Mold Temperature Range		°C (°F)	50-90 (120-190)	
Mold Temperature Optimum		°C (°F)	70 (160)	
Drying Time, Dehumidified Dryer		h	2-4	
Drying Temperature		°C (°F)	80 (175)	
Processing Moisture Content		%	<0.20	

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