

DuPont™ Zytel®

nylon resin

Zytel® 135F NC010

Zytel® 135F NC010 is a nucleated polyamide 66 resin for injection molding. It was developed for fast cycles and high productivity.

Property	Test Method	Units	Value	
			DAM	50%RH
Identification				
Resin Identification	ISO 1043		PA66	
Part Marking Code	ISO 11469		>PA66<	
Mechanical				
Yield Stress	ISO 527	MPa (kpsi)	96 (13.9)	67 (9.7)
Strain at Break	ISO 527	%		
50mm/min			20	>50
Nominal Strain at Break	ISO 527	%	13	50
Yield Strain	ISO 527	%	4.5	18
Tensile Modulus	ISO 527	MPa (kpsi)	3600 (522)	2000 (290)
Tensile Creep Modulus	ISO 899	MPa (kpsi)		
1h				2000 (290)
1000h				1280 (186)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m ²		
-30°C (-22°F)			3	2.5
23°C (73°F)			4	9
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m ²		
-30°C (-22°F)			NB	NB
23°C (73°F)			NB	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.

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Thermal				
Deflection Temperature 0.45MPa	ISO 75f	°C (°F)	210 (410)	
1.80MPa			75 (167)	
Melting Temperature 10°C/min	ISO 11357-1/-3	°C (°F)	263 (505)	
CLTE, Normal 23 - 55°C (73 - 130°F)	ISO 11359-1/-2	E-4/C (E-4/F)	1.21 (0.68)	
CLTE, Parallel 23 - 55°C (73 - 130°F)	ISO 11359-1/-2	E-4/C (E-4/F)	1.21 (0.68)	
Vicat Softening Temperature 50N	ISO 306	°C (°F)	243 (469)	
Electrical				
Relative Permittivity 1E2 Hz	IEC 60250		3.9	8.7
1E6 Hz			3.8	3.9
Dissipation Factor 1E2 Hz	IEC 60250	E-4	70	2400
1E6 Hz			200	600
CTI	IEC 60112	V	600	
CTI 3.0mm	UL 746A	V	>600	
Flammability				
Flammability Classification 0.71mm	IEC 60695-11-10		V-2	
Flammability Classification 0.71mm	UL94		V-2	

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Flammability				
Glow Wire Flammability Index	IEC 60695-2-12	°C		
0.71mm			960	
1.5mm			960	
3.0mm			960	
Glow Wire Ignition Temperature	IEC 60695-2-13	°C		
0.71mm			725	
1.5mm			750	
3.0mm			800	
Temperature Index				
RTI, Electrical	UL 746B	°C		
0.71mm			130	
RTI, Impact	UL 746B	°C		
0.71mm			75	
RTI, Strength	UL 746B	°C		
0.71mm			85	
Other				
Density	ISO 1183	kg/m ³ (g/cm ³)	1140 (1.14)	
Hardness, Rockwell	ISO 2039/2			
Scale M			87	64
Scale R		123	116	
Water Absorption	ISO 62, Similar to	%		
Equilibrium 50%RH			2.7	
Saturation, immersed			8.5	
Molding Shrinkage	ISO 294-4	%		
Parallel, 2.0mm			0.7	

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Processing				
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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