DuPont™ Zytel®

nylon resin

Zytel® 70G35HSL NC010

Zytel® 70G35HSL NC010 is a 35% glass fiber reinforced, heat stabilized polyamide 66 resin for injection molding.

Property	Test Method	Units	Value	
			DAM	50%RH
Identification				
Resin Identification	ISO 1043		PA66-GF35	
Part Marking Code	ISO 11469		>PA66-GF35<	
Mechanical				
Stress at Break	ISO 527	MPa (kpsi)	210 (30.5)	145 (21.0)
Strain at Break	ISO 527	%	3.2	4.6
Tensile Modulus	ISO 527	MPa (kpsi)	11200 (1600)	8300 (1200)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m^2		
-30°C (-22°F)			10	10
23°C (73°F)			15	18
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m^2		
-30°C (-22°F)			80	75
23°C (73°F)			90	100
Thermal				
Deflection Temperature	ISO 75f	°C (°F)		
0.45MPa			261 (502)	
1.80MPa			252 (486)	
Melting Temperature	ISO 11357-1/-3	°C (°F)		
10°C/min			262 (504)	

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.

050321/050321

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			DAM	50%RH
Thermal				
CLTE, Normal	ISO 11359-1/-2	E-4/C (E-4/F)		
23 - 55°C (73 - 130°F)			1 (0.56)	
CLTE, Parallel	ISO 11359-1/-2	E-4/C (E-4/F)		
23 - 55°C (73 - 130°F)			0.2 (0.11)	
Vicat Softening Temperature	ISO 306	°C (°F)		
50N			255 (491)	
Electrical				
Surface Resistivity	IEC 60093	ohm	>1E15	1E13
Relative Permittivity	IEC 60250			
1E6 Hz			4.1	4.7
Volume Resistivity	IEC 60093	ohm m	1E15	1E9
Dissipation Factor	IEC 60250	E-4		
1E6 Hz			140	620
CTI	IEC 60112	V	400	
CTI	UL 746A	V		
3.0mm			250	
Flammability				
Flammability Classification	IEC 60695-11-10			
0.71mm			HB	
Flammability Classification	UL94			
0.71mm			HB	
High Amperage Arc Ignition Resistance	UL 746A	arcs		
0.71mm			120	
1.5mm			120	
3.0mm			120	
Hot Wire Ignition	UL 746A	s		
0.71mm			7	
1.5mm			7	
3.0mm			120	

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			DAM	50%RH
Temperature Index				
RTI, Electrical	UL 746B	°C		
0.71mm			140	
RTI, Impact	UL 746B	°C		
0.71mm			125	
RTI, Strength	UL 746B	°C		
0.71mm			140	
Other				
Density	ISO 1183	kg/m^3 (g/cm^3)	1410 (1.41)	
Ball Indention Hardness	ISO 2039-1	MPa (kpsi)		
H 961/30			285 (41)	203 (29)
Hardness, Rockwell	ISO 2039/2			
Scale M			105	89
Scale R			125	117
Water Absorption	ISO 62, Similar to	%		
Equilibrium 50%RH			1.7	
Saturation, immersed			5.5	
Molding Shrinkage	ISO 294-4	%		
Normal, 2.0mm			1.1	
Parallel, 2.0mm			0.3	
Processing				
Melt Temperature Range		°C (°F)	285-305 (545-580)	
Melt Temperature Optimum		°C (°F)	295 (565)	
Mold Temperature Range		°C (°F)	70-120 (160-250)	
Mold Temperature Optimum		°C (°F)	100 (210)	
Drying Time, Dehumidified Dryer		h	2-4	
Drying Temperature		°C (°F)	80 (175)	
Processing Moisture Content		%	<0.20	

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