DuPont™ Zytel®

nylon resin

Zytel® FR72G25V0 NC010

Zytel® FR72G25V0 NC010 is a 25% glass fiber reinforced, flame retardant polyamide 66/6 copolymer resin for injection molding.

Property	Test Method	Units	Value	
			DAM	50%RH
Identification				
Resin Identification	ISO 1043		PA66/6-GF25FR(17)	
Part Marking Code	ISO 11469		>PA66/6-GF25FR(17)<	
Mechanical				
Stress at Break	ISO 527	MPa (kpsi)	135 (19.6)	100 (14.5)
Strain at Break	ISO 527	%	2.5	3.5
Tensile Modulus	ISO 527	MPa (kpsi)	9200 (1334)	6500 (943)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m^2		
-30°C (-22°F)			11	
23°C (73°F)			12	
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m^2		
-30°C (-22°F)			70	
23°C (73°F)			55	

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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Property	Test Method	Units	Value	
			DAM	50%RH
Thermal				
Deflection Temperature	ISO 75-1/-2	°C (°F)		
0.45MPa			241 (466)	
1.80MPa			215 (419)	
Melting Temperature	ISO 11357-1/-3	°C (°F)		
10°C/min			242 (468)	
CLTE, Parallel	ISO 11359-1/-2	E-4/C (E-4/F)		
23 - 55°C (73 - 130°F)			0.2 (0.11)	
CLTE, Normal	ISO 11359-1/-2	E-4/C (E-4/F)		
23 - 55°C (73 - 130°F)			1.06 (0.59)	
Vicat Softening Temperature	ISO 306	°C (°F)		
50N			220 (428)	
Electrical				
Volume Resistivity	IEC 60093	ohm m	>1E13	
Electric Strength	IEC 60243-1	kV/mm (V/mil)		
1.0mm			35 (888)	25 (635)
Relative Permittivity	IEC 60250			
1E2 Hz			4.2	
Dissipation Factor	IEC 60250	E-4		
1E2 Hz			60	
CTI	IEC 60112	PLC	2	
CTI	UL 746A	PLC		
3.0mm			2	

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Property	Test Method	Units	Value	
			DAM	50%RH
Flammability				
Flammability Classification	IEC 60695-11-10			
0.50mm			V-0	
0.83mm			V-0	
1.53mm			V-0	
3.0mm			V-0	
Flammability Classification	UL94			
0.50mm			V-0	
0.83mm			V-0	
1.53mm			V-0	
3.0mm			V-0	
Glow Wire Flammability Index	IEC 60695-2-12	°C		
1.5mm			960	
High Current Arc Ignition Resistance	UL 746A	PLC		
0.50mm			0	
0.83mm			0	
1.53mm			0	
3.0mm			0	
High Voltage Arc Tracking Rate	UL 746A	PLC		
0.50mm			4	
0.83mm			4	
1.5mm			4	
3.0mm			4	
Hot Wire Ignition	UL 746A	PLC		
0.50mm			0	
0.83mm			0	
1.53mm			0	
3.0mm			0	

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Property	Test Method	Units	Value	
			DAM	50%RH
Temperature Index				
RTI, Electrical	UL 746B	°C		
0.50mm			65	
0.83mm			140	
1.53mm			140	
3.0mm			140	
RTI, Impact	UL 746B	°C		
0.50mm			65	
0.83mm			120	
1.53mm			120	
3.0mm			120	
RTI, Strength	UL 746B	°C		
0.50mm			65	
0.83mm			140	
1.53mm			140	
3.0mm			140	
Other				
Density	ISO 1183	kg/m^3 (g/cm^3)	1490 (1.49)	
Ball Indention Hardness	ISO 2039-1	MPa (kpsi)		
H 961/30			213 (30)	106 (15.4)
Water Absorption	ISO 62, Similar to	%		
Equilibrium 50%RH			1.1	
Saturation, immersed			4.1	
Molding Shrinkage	ISO 294-4	%		
Parallel, 2.0mm			0.2	

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Property	Test Method	Units	Value	
			DAM	50%RH
Processing				
Melt Temperature Range		°C (°F)	270-290 (520-550)	
Melt Temperature Optimum		°C (°F)	280 (535)	
Mold Temperature Range		°C (°F)	70-110 (160-230)	
Mold Temperature Optimum		°C (°F)	90 (195)	
Drying Time, Dehumidified Dryer		h	2-4	
Drying Temperature		°C (°F)	80 (175)	
Processing Moisture Content		%	<0.20	

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