DuPont™ Zytel®

nylon resin

Zytel® 73G30L NC010

Zytel® 73G30L NC010 is a 30% glass fiber reinforced polyamide 6 resin for injection molding.

Property	Test Method	Units	Value	
			DAM	50%RH
Identification				
Resin Identification	ISO 1043		PA6-GF30	
Part Marking Code	ISO 11469		>PA6-GF30<	
Mechanical				
Stress at Break	ISO 527	MPa (kpsi)	185 (26.8)	115 (16.7)
Strain at Break	ISO 527	%	3.5	6
Tensile Modulus	ISO 527	MPa (kpsi)	9800 (1420)	6000 (870)
Flexural Modulus	ISO 178	MPa (kpsi)	8200 (1190)	
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m^2		
-40°C (-40°F)			11	
-30°C (-22°F)			11	21
23°C (73°F)			16	23
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m^2		
-30°C (-22°F)			80	84
23°C (73°F)			100	97

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 75f	°C (°F)		
0.45MPa			220 (428)	
1.80MPa			210 (410)	
Melting Temperature	ISO 11357-1/-3	°C (°F)		
10°C/min			221 (430)	
CLTE, Normal	ISO 11359-1/-2	E-4/C (E-4/F)		
-40 - 23°C (-40 - 73°F)			0.71 (0.39)	
23 - 55°C (73 - 130°F)			1.02 (0.57)	
55 - 160°C (130 - 320°F)			1.19 (0.66)	
CLTE, Parallel	ISO 11359-1/-2	E-4/C (E-4/F)		
-40 - 23°C (-40 - 73°F)			0.26 (0.14)	
23 - 55°C (73 - 130°F)			0.14 (0.08)	
55 - 160°C (130 - 320°F)			0.12 (0.07)	
Electrical				
CTI	UL 746A	V		
3.0mm			600	
Flammability				
Flammability Classification	IEC 60695-11-10			
1.5mm			HB	
Flammability Classification	UL94			
1.5mm			HB	
Oxygen Index	ISO 4589-1/-2	%	21	
High Amperage Arc Ignition Resistance	UL 746A	arcs		
0.75mm			150	
1.5mm			150	
3.0mm			150	
Hot Wire Ignition	UL 746A	s		
0.75mm			11	
1.5mm			36	
3.0mm			148	

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Property	Test Method	Units	Value	
			DAM	50%RH
Temperature Index				
RTI, Electrical	UL 746B	°C		
1.5mm			65	
RTI, Impact	UL 746B	°C		
1.5mm			65	
RTI, Strength	UL 746B	°C		
1.5mm			65	
Other				
Density	ISO 1183	kg/m^3 (g/cm^3)	1360 (1.36)	
Water Absorption	ISO 62, Similar to	%		
Equilibrium 50%RH			1.9	
Saturation, immersed			6.3	
Molding Shrinkage	ISO 294-4	%		
Normal, 2.0mm			0.6	
Parallel, 2.0mm			0.2	
Mold Shrinkage		%		
Flow, 1.6mm (0.062in)			0.2	
Flow, 3.2mm (0.126in)			0.2	
Transverse, 1.6mm (0.062in)			1.0	
Transverse, 3.2mm (0.126in)			1.0	
Processing				
Melt Temperature Range		°C (°F)	260-280 (500-535)	
Melt Temperature Optimum		°C (°F)	270 (520)	
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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