

DuPont™ Zytel®

nylon resin

Zytel® 80G33L NC010

Zytel® 80G33L NC010 is a 33% glass fiber reinforced polyamide 66 resin with outstanding impact resistance developed using DuPont® Super Tough technology.

Property	Test Method	Units	Value	
			DAM	50%RH
Identification				
Resin Identification	ISO 1043		PA66-IGF33	
Part Marking Code	ISO 11469		>PA66-IGF33<	
Mechanical				
Stress at Break	ISO 527	MPa (kpsi)	142 (20.6)	95 (13.8)
Strain at Break	ISO 527	%	4	5
Tensile Modulus	ISO 527	MPa (kpsi)	8700 (1260)	5800 (840)
Flexural Modulus	ISO 178	MPa (kpsi)	7400 (1070)	5200 (750)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m ²		
-40°C (-40°F)			13	13
-30°C (-22°F)			14	14
23°C (73°F)			20	22
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m ²		
-30°C (-22°F)			80	75
23°C (73°F)			91	80

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
Thermal				
Deflection Temperature 0.45MPa	ISO 75f	°C (°F)	262 (504)	
1.80MPa			247 (477)	
Melting Temperature 10°C/min	ISO 11357-1/-3	°C (°F)	262 (504)	
CLTE, Normal -40 - 23°C (-40 - 73°F)	ISO 11359-1/-2	E-4/C (E-4/F)	0.96 (0.53)	
23 - 55°C (73 - 130°F)			1.19 (0.66)	
55 - 160°C (130 - 320°F)			1.30 (0.72)	
CLTE, Parallel -40 - 23°C (-40 - 73°F)	ISO 11359-1/-2	E-4/C (E-4/F)	0.22 (0.12)	
23 - 55°C (73 - 130°F)			0.15 (0.08)	
55 - 160°C (130 - 320°F)			0.14 (0.08)	
Electrical				
CTI 3.0mm	UL 746A	V	600	
Flammability				
Flammability Classification 0.75mm	IEC 60695-11-10		HB	
Flammability Classification 0.75mm	UL94		HB	
Oxygen Index	ISO 4589-1/-2	%	23	
Glow Wire Flammability Index 0.75mm	IEC 60695-2-12	°C	650	
1.5mm			650	
3.0mm			775	

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			DAM	50%RH
Flammability				
Glow Wire Ignition Temperature	IEC 60695-2-13	°C		
0.75mm			675	
1.5mm			675	
3.0mm			725	
High Amperage Arc Ignition Resistance	UL 746A	arcs		
0.75mm			150	
1.5mm			150	
3.0mm			>200	
Hot Wire Ignition	UL 746A	s		
0.75mm			17	
1.5mm			51	
3.0mm			63	
Temperature Index				
RTI, Electrical	UL 746B	°C		
0.75mm			120	
RTI, Impact	UL 746B	°C		
0.75mm			65	
1.5mm			105	
RTI, Strength	UL 746B	°C		
0.75mm			85	
1.5mm			95	
3.0mm			105	
Other				
Density	ISO 1183	kg/m ³ (g/cm ³)	1320 (1.32)	
Water Absorption	ISO 62, Similar to	%		
Immersion 24h			0.83	
Molding Shrinkage	ISO 294-4	%		
Normal, 2.0mm			0.8	
Parallel, 2.0mm			0.3	
Mold Shrinkage		%		
Flow, 3.2mm (0.126in)			0.4	
Transverse, 3.2mm (0.126in)			1.2	

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			DAM	50%RH
Processing				
Melt Temperature Range		°C (°F)	285-305 (545-580)	
Melt Temperature Optimum		°C (°F)	295 (565)	
Mold Temperature Range		°C (°F)	50-100 (120-210)	
Mold Temperature Optimum		°C (°F)	80 (175)	
Drying Time, Dehumidified Dryer		h	2-4	
Drying Temperature		°C (°F)	80 (175)	
Processing Moisture Content		%	<0.20	

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