

DuPont™ Zytel®

nylon resin

Zytel® 73G45L NC010

Zytel® 73G45L NC010 is a 45% glass fiber reinforced polyamide 6 resin for injection molding.

Property	Test Method	Units	Value		
			DAM	50%RH	
Identification					
Resin Identification	ISO 1043		PA6-GF45		
Part Marking Code	ISO 11469		>PA6-GF45<		
Mechanical					
Stress at Break	ISO 527	MPa (kpsi)	230 (33.4)	160 (23.2)	
Strain at Break	ISO 527	%	3	5	
Tensile Modulus	ISO 527	MPa (kpsi)	14500 (2100)	9700 (1410)	
Flexural Modulus	ISO 178	MPa (kpsi)	13000 (1890)		
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m ²			
			-30°C (-22°F)	19	23
			23°C (73°F)	20	25
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m ²			
			-30°C (-22°F)	115	101
			23°C (73°F)	115	111
Thermal					
Deflection Temperature	ISO 75f	°C (°F)			
			0.45MPa	221 (430)	
			1.80MPa	213 (415)	
Melting Temperature	ISO 11357-1/-3	°C (°F)			
			10°C/min	221 (430)	

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				
CLTE, Normal 23 - 55°C (73 - 130°F)	ISO 11359-1/-2	E-4/C (E-4/F)	1.0 (0.56)	
CLTE, Parallel 23 - 55°C (73 - 130°F)	ISO 11359-1/-2	E-4/C (E-4/F)	0.16 (0.09)	
Vicat Softening Temperature 50N	ISO 306	°C (°F)	215 (419)	
Flammability				
Flammability Classification 1.5mm	IEC 60695-11-10		HB	
Flammability Classification 1.5mm	UL94		HB	
Temperature Index				
RTI, Electrical 1.5mm	UL 746B	°C	65	
RTI, Impact 1.5mm	UL 746B	°C	65	
RTI, Strength 1.5mm	UL 746B	°C	65	
Other				
Density	ISO 1183	kg/m ³ (g/cm ³)	1510 (1.51)	
Water Absorption	ISO 62, Similar to	%		
Equilibrium 50%RH			1.5	
Saturation, immersed			4.9	
Molding Shrinkage	ISO 294-4	%		
Normal, 2.0mm			0.9	
Parallel, 2.0mm			0.15	
Mold Shrinkage		%		
Flow, 1.6mm (0.062in)			0.1	
Flow, 3.2mm (0.126in)			0.2	
Transverse, 1.6mm (0.062in)			1.0	
Transverse, 3.2mm (0.126in)			0.9	

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			DAM	50%RH
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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