DuPont™ Zytel®

nylon resin

PRELIMINARY DATA

Zytel® 75LG50HSL BK031

Zytel® 75LG50HSL is a 50% long glass reinforced, heat stabilized, lubricated polyamide 66 resin for structural applications.

Property	Test Method	Units	Value	
			DAM	50%RH
Identification				
Resin Identification	ISO 1043		PA66-GF50	
Part Marking Code	ISO 11469		>PA66-GF50<	
Mechanical				
Stress at Break	ISO 527	MPa (kpsi)	260 (37.7)	210 (30.5)
Strain at Break	ISO 527	%	1.9	2.1
Tensile Modulus	ISO 527	MPa (kpsi)	17000 (2470)	14000 (2030)
Flexural Modulus	ISO 178	MPa (kpsi)	14500 (2100)	12000 (1740)
Flexural Strength	ISO 178	MPa (kpsi)	400 (58.0)	310 (45)
Notched Izod Impact Strength	ISO 180/1A	kJ/m^2	45	
Unnotched Izod Impact Strength	ISO 180/1U	kJ/m^2	85	
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m^2		
-30°C (-22°F)			50	53
23°C (73°F)			50	53
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m^2		
-30°C (-22°F)			80	87
23°C (73°F)			95	105

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.
For optimal properties with long glass resins, it is necessary to process the resin with conditions that minimize fiber breakage.
Recommended molding equipment include a mild working screw, with a low compression ratio and deep metering section.

The above data are preliminary and are subject to change as additional data are developed on subsequent lots.

050602/050818

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Property	Test Method	Units	Value	
			DAM	50%RH
Thermal				
Deflection Temperature	ISO 75f	°C (°F)		
1.80MPa			260 (500)	
Melting Temperature	ISO 11357-1/-3	°C (°F)		
10°C/min			260 (500)	
CLTE, Normal	ISO 11359-1/-2	E-4/C (E-4/F)		
-40 - 23°C (-40 - 73°F)			0.51 (0.28)	
23 - 55°C (73 - 130°F)			0.67 (0.37)	
55 - 125°C (131 - 257°F)			0.97 (0.54)	
CLTE, Parallel	ISO 11359-1/-2	E-4/C (E-4/F)		
-40 - 23°C (-40 - 73°F)			0.16 (0.09)	
23 - 55°C (73 - 130°F)			0.12 (0.07)	
55 - 125°C (131 - 257°F)			0.08 (0.04)	
Other				
Density	ISO 1183	kg/m^3 (g/cm^3)	1590 (1.59)	
Molding Shrinkage	ISO 294-4	%		
Normal, 2.0mm			0.6	
Parallel, 2.0mm			0.2	
Processing				
Melt Temperature Range		°C (°F)	290-310 (550-590)	
Melt Temperature Optimum		°C (°F)	305 (580)	
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	
Processing Moisture Content		%	<0.20	

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