

DuPont™ Zytel® HTN

high performance polyamide resin

PRELIMINARY DATA

Zytel® HTN54G50HSLR NC010

Zytel® HTN54G50HSLR NC010 is a 50% glass reinforced, toughened, heat stabilized, hydrolysis resistant high performance polyamide resin developed for retention of toughness and stiffness with moisture in structural applications. It is also a PPA resin.

Property	Test Method	Units	Value	
			DAM	50%RH
Identification				
Part Marking Code	ISO 11469		>PA6T/XT+PA6T/66-IGF50<	
Part Marking Code	SAE J1344		>PPA-IGF50<	
Mechanical				
Stress at Break	ISO 527	MPa (kpsi)	215 (31.1)	190 (27.5)
Strain at Break	ISO 527	%	2.7	2.8
Tensile Modulus	ISO 527	MPa (kpsi)	14800 (2150)	15500 (2150)
Flexural Modulus	ISO 178	MPa (kpsi)	13800 (2000)	14700 (2130)
Flexural Strength	ISO 178	MPa (kpsi)	325 (47)	311 (45)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m ²		
-40°C (-40°F)				13
23°C (73°F)			12	13.5
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m ²		
-40°C (-40°F)				65
23°C (73°F)			90	75

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.

During molding, use proper protective equipment and adequate ventilation. Avoid exposure to fumes and limit the hold up time and temperature of the resin in the machine. Purge degraded resin carefully with HDPE.

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

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Property	Test Method	Units	Value	
			DAM	50%RH
Thermal				
Deflection Temperature 0.45MPa	ISO 75-1/-2	°C (°F)	290 (554)	
1.80MPa			272 (522)	
Melting Temperature 10°C/min, First Heat	ISO 11357-1/-3	°C (°F)	300 (572)	
CLTE, Normal -40 - 23°C (-40 - 73°F)	ISO 11359-1/-2	E-4/C (E-4/F)	0.50 (0.28)	
23 - 55°C (73 - 130°F)			0.50 (0.28)	
125 - 160°C (257 - 320°F)			0.90 (0.50)	
CLTE, Parallel -40 - 23°C (-40 - 73°F)	ISO 11359-1/-2	E-4/C (E-4/F)	0.14 (0.07)	
23 - 55°C (73 - 130°F)			0.14 (0.07)	
Electrical				
CTI	UL 746A	V	600	
Other				
Density	ISO 1183	kg/m ³ (g/cm ³)	1580 (1.58)	
Water Absorption Immersion 24h	ISO 62, Similar to	%	0.27	
Molding Shrinkage Normal, 2.0mm	ISO 294-4	%	0.4	
Parallel, 2.0mm			0.2	
Processing				
Melt Temperature Range		°C (°F)	320-330 (610-625)	
Melt Temperature Optimum		°C (°F)	325 (620)	
Mold Temperature Range		°C (°F)	85-135 (185-275)	
Drying Time, Dehumidified Dryer		h	6-8	
Drying Temperature		°C (°F)	100 (210)	
Processing Moisture Content		%	<0.10	

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