

DuPont™ Zytel® HTN

high performance polyamide resin

Zytel® HTN54G50HSLR BK031

Zytel® HTN54G50HSLR BK031 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.

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Property	Test Method	Units	Value
			DAM
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)
Strain at Break	ISO 527	%	2.5
Tensile Modulus	ISO 527	MPa (kpsi)	14800 (2140)
Flexural Modulus	ISO 178	MPa (kpsi)	13200 (1910)
Flexural Strength	ISO 178	MPa (kpsi)	330 (48)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m ²	
-40°C (-40°F)			12
23°C (73°F)			13.5
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m ²	90

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.

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Property	Test Method	Units	Value
			DAM
Thermal			
Deflection Temperature	ISO 75f	°C (°F)	
0.45MPa			287 (549)
1.80MPa			264 (507)
Melting Temperature	ISO 11357-1/-3	°C (°F)	
10°C/min, First Heat			300 (572)
CLTE, Normal			
	ISO 11359-1/-2	E-4/C (E-4/F)	
-40 - 23°C (-40 - 73°F)			0.50 (0.27)
23 - 55°C (73 - 130°F)			0.50 (0.27)
125 - 160°C (257 - 320°F)			0.95 (0.52)
CLTE, Parallel			
	ISO 11359-1/-2	E-4/C (E-4/F)	
-40 - 23°C (-40 - 73°F)			0.14 (0.07)
23 - 55°C (73 - 130°F)			0.14 (0.07)
Electrical			
CTI	UL 746A	V	
3.0mm			550
Other			
Density	ISO 1183	kg/m ³ (g/cm ³)	1580 (1.58)
Water Absorption	ISO 62, Similar to	%	
Immersion 24h			0.27
Molding Shrinkage	ISO 294-4	%	
Normal, 2.0mm			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)	85-105 (190-220)
Mold Temperature Optimum		°C (°F)	95 (200)
Drying Time, Dehumidified Dryer		h	6-8
Drying Temperature		°C (°F)	100 (212)
Processing Moisture Content		%	<0.10

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