

DuPont™ Zytel® HTN

high performance polyamide resin

PRELIMINARY DATA

Zytel® HTN51G25HSL BK083

Glass Reinforced High Performance Polyamide Resin

Zytel® HTN51G25HSL BK083 is a 25% glass reinforced, heat stabilized, lubricated high performance polyamide resin. It is also a PPA resin.

Property	Test Method	Units	Value	
			DAM	50%RH
Identification				
Part Marking Code	ISO 11469		>PA6T/XT-GF25<	
Part Marking Code	SAE J1344		>PPA-GF25<	
Mechanical				
Stress at Break	ISO 527	MPa (kpsi)	170 (24.6)	170 (24)
Strain at Break	ISO 527	%	2.2	2.3
Tensile Modulus	ISO 527	MPa (kpsi)	9100 (1320)	9000 (1300)
Flexural Modulus	ISO 178	MPa (kpsi)	8000 (1160)	7900 (1145)
Notched Izod Impact Strength -40°C (-40°F)	ISO 180/1A	kJ/m ²	8	
Notched Charpy Impact Strength -40°C (-40°F)	ISO 179/1eA	kJ/m ²	8	7
23°C (73°F)			9	7
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m ²	47	47

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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Product Information

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Property	Test Method	Units	Value	
			DAM	50%RH
Thermal				
Deflection Temperature 1.80MPa	ISO 75f	°C (°F)	261 (502)	
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)	0.56 (0.31)	
23 - 55°C (73 - 130°F)			0.61 (0.33)	
55 - 160°C (130 - 320°F)			0.66 (0.36)	
CLTE, Parallel -40 - 23°C (-40 - 73°F)	ISO 11359-1/-2	E-4/C (E-4/F)	0.24 (0.13)	
23 - 55°C (73 - 130°F)			0.22 (0.12)	
Electrical				
CTI	IEC 60112	V	600	
Flammability				
Flammability Classification 0.75mm	UL94		HB	
Temperature Index				
RTI, Electrical 0.75mm	UL 746B	°C	150	
1.5mm			150	
3.0mm			150	
RTI, Impact 0.75mm	UL 746B	°C	125	
1.5mm			125	
3.0mm			130	

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			DAM	50%RH
Temperature Index				
RTI, Strength	UL 746B	°C		
0.75mm			130	
1.5mm			140	
3.0mm			150	
Other				
Density	ISO 1183	kg/m ³ (g/cm ³)	1380 (1.38)	
Water Absorption	ISO 62, Similar to	%		
Equilibrium 50%RH, 2.0mm			1.8	
Immersion 24h, 2.0mm			0.6	
Saturation, immersed, 2.0mm			5.0	
Processing				
Melt Temperature Range		°C (°F)	320-330 (610-625)	
Melt Temperature Optimum		°C (°F)	325 (620)	
Mold Temperature Range		°C (°F)	140-160 (280-320)	
Mold Temperature Optimum		°C (°F)	150 (300)	
Drying Time, Dehumidified Dryer		h	6-8	
Drying Temperature		°C (°F)	100 (212)	
Air Dew Point		°C (°F)	<-20 (<-4)	
Processing Moisture Content		%	<0.10	

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