DuPont™ Zytel® HTN

high performance polyamide resin

Zytel® HTNFE18502 NC010

Zytel® HTNFE18502 NC010 is an unreinforced, toughened, heat stabilized, lubricated high performance polyamide resin for injection molding. It is also a PPA resin.

Property	Test Method	Units	Value	
			DAM	50%RH
Identification				
Part Marking Code	ISO 11469		>PA-I<	
Part Marking Code	SAE J1344		>PPA-I<	
Mechanical				
Yield Stress	ISO 527	MPa (kpsi)	58 (8.5)	52 (7.5)
Yield Strain	ISO 527	%	5.5	3.9
Nominal Strain at Break	ISO 527	%	10	
Tensile Modulus	ISO 527	MPa (kpsi)	2100 (305)	2280 (330)
Poissons Ratio	ISO 527		0.39	
Flexural Modulus	ISO 178	MPa (kpsi)	1700 (247)	
Flexural Strength	ISO 178	MPa (kpsi)	85 (12)	
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m^2	45	
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m^2		
-30°C (-22°F)			NB	NB
23°C (73°F)			NB	NB

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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			DAM	50%RH
Thermal				
Deflection Temperature	ISO 75-1/-2	°C (°F)		
0.45MPa			210 (410)	
1.80MPa			114 (237)	
Melting Temperature	ISO 11357-1/-3	°C (°F)		
10°C/min, First Heat			305 (581)	
Electrical				
Surface Resistivity	IEC 60093	ohm	>1E15	
Volume Resistivity	IEC 60093	ohm m	>1E13	
Other				
Density	ISO 1183	kg/m^3 (g/cm^3)	1110 (1.11)	
Molding Shrinkage	ISO 294-4	%		
Normal, 2.0mm			1.0	
Parallel, 2.0mm			1.0	
Processing				
Melt Temperature Range		°C (°F)	320-330 (610-625)	
Melt Temperature Optimum		°C (°F)	325 (620)	
Mold Temperature Range		°C (°F)	70-90 (160-195)	
Drying Time, Dehumidified Dryer		h	6-8	
Drying Temperature		°C (°F)	100 (210)	
Processing Moisture Content		%	<0.10	

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