

DuPont™ Zytel® HTN

high performance polyamide resin

Zytel® HTNFR52G30NH NC010

Zytel® HTNFR52G30NH NC010 is a 30% glass reinforced, flame retardant, lubricated high performance polyamide resin. It is also a PPA resin and it uses a non-halogenated flame retardant.

Property	Test Method	Units	Value	
			DAM	50%RH
Identification				
Part Marking Code	ISO 11469		>PA6T/66-GF30FR<	
Part Marking Code	SAE J1344		>PPA-GF30FR<	
Mechanical				
Stress at Break	ISO 527	MPa (kpsi)	150 (22)	130 (19)
Strain at Break	ISO 527	%	2.2	2
Tensile Modulus	ISO 527	MPa (kpsi)	10500 (1520)	10500 (1520)
Flexural Modulus	ISO 178	MPa (kpsi)	9000 (1300)	10000 (1450)
Flexural Strength	ISO 178	MPa (kpsi)	230 (35)	200 (29)
Notched Charpy Impact Strength	ISO 179/1eA	kJ/m ²		
-30°C (-22°F)			7	7
23°C (73°F)			8	7
Unnotched Charpy Impact Strength	ISO 179/1eU	kJ/m ²		
-30°C (-22°F)			40	35
23°C (73°F)			45	40

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 molding machine components, use corrosion resistant and wear resistant steel. For details please contact your DuPont representative. Limit the residence time of the resin in the machine. Use proper protective equipment and adequate ventilation.

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			DAM	50%RH
Thermal				
Deflection Temperature 1.80MPa	ISO 75-1/-2	°C (°F)	283 (540)	
Melting Temperature 10°C/min, First Heat	ISO 11357-1/-3	°C (°F)	310 (590)	
CLTE, Parallel -40 - 23°C (-40 - 73°F) 23 - 55°C (73 - 130°F) 55 - 160°C (130 - 320°F) 160 - 250°C (320 - 480°F)	ISO 11359-1/-2	E-4/C (E-4/F)	0.2 (0.1) 0.2 (0.1) 0.2 (0.1) 0.3 (0.2)	
CLTE, Normal -40 - 23°C (-40 - 73°F) 23 - 55°C (73 - 130°F) 55 - 160°C (130 - 320°F) 160 - 250°C (320 - 480°F)	ISO 11359-1/-2	E-4/C (E-4/F)	0.6 (0.3) 0.6 (0.3) 1.0 (0.6) 1.4 (0.8)	
Electrical				
Surface Resistivity	IEC 60093	ohm	>1E15	
Volume Resistivity	IEC 60093	ohm m	>1E13	
Electric Strength 2.0mm	IEC 60243-1	kV/mm (V/mil)	26.0 (655)	
Dielectric Constant 1 GHz 10 GHz	ASTM D 2520 B		3.7 3.8	
Dissipation Factor 1 GHz 10 GHz	ASTM D 2520 B	E-4	110 100	
CTI	IEC 60112	V	600	

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Product Information

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			DAM	50%RH
Flammability				
Flammability Classification 0.4mm	UL94		V-0	
Oxygen Index	ISO 4589-1/-2	%	37	
Glow Wire Flammability Index 0.75mm	IEC 60695-2-12	°C	960	
Glow Wire Ignition Temperature 0.75mm	IEC 60695-2-13	°C	725	
Other				
Density	ISO 1183	kg/m ³ (g/cm ³)	1440 (1.44)	
Molding Shrinkage Normal, 2.0mm Parallel, 2.0mm	ISO 294-4	%	1.0 0.3	
Processing				
Melt Temperature Range		°C (°F)	320-325 (608-617)	
Mold Temperature Range		°C (°F)	85-130 (185-265)	
Drying Time, Dehumidified Dryer		h	6-8	
Drying Temperature		°C (°F)	100 (210)	
Processing Moisture Content		%	<0.10	

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