

DuPont™ Zytel® HTNFR52G30BL BK337

HIGH PERFORMANCE POLYAMIDE RESIN

Product Information

Zytel® HTN high performance polyamide resins feature high retention of properties upon exposure to elevated temperature, to high moisture, and to harsh chemical environments. Polymer families and grades of Zytel® HTN are tailored to optimize performance as well as processability.

Typical applications with Zytel® HTN include demanding applications in the automotive, electrical and electronics, domestic appliances, and construction industries.

Zytel® HTNFR52G30BL BK337 is a 30% glass reinforced, flame retardant, lubricated high performance polyamide resin that has been developed for connector applications.

General information	Value	Unit	Test Standard
Resin Identification	PA6T/66-GF30FR(1 6+72)	-	ISO 1043
Part Marking Code	PA6T/66-GF30FR(1 6+72)	-	ISO 11469
Part Marking Code	>PPA-GF30FR<	-	SAE J1344
Rheological properties	dry / cond	Unit	Test Standard
Molding shrinkage, parallel	0.3 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	0.8 / -	%	ISO 294-4, 2577
Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	11800 / -	MPa	ISO 527-1/-2
Stress at break	160 / -	MPa	ISO 527-1/-2
Strain at break	2 / -	%	ISO 527-1/-2
Flexural Modulus	10000 / -	MPa	ISO 178
Flexural Strength	240 / 210	MPa	ISO 178
Charpy impact strength			ISO 179/1eU
73 °F	50 / 35	kJ/m ²	
-22 °F	40 / 35	kJ/m ²	
Charpy notched impact strength			ISO 179/1eA
73 °F	10 / -	kJ/m ²	
-22 °F	10 / -	kJ/m ²	
Thermal properties	dry / cond	Unit	Test Standard
Melting temperature, first heat	310 / *	°C	ISO 11357-1/-3
Temp. of deflection under load, 260 psi	282 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	20 / *	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion			ISO 11359-1/-2
normal	63 / *	E-6/K	
Normal, -40-23 °C	57 / *	E-6/K	
Normal, 55-160 °C	100 / *	E-6/K	
Parallel, -40-23 °C	20 / *	E-6/K	
Parallel, 55-160 °C	10 / *	E-6/K	
RTI, electrical			UL 746B
60mil	140 / *	°C	
120mil	140	°C	
RTI, impact			UL 746B
60mil	120 / *	°C	
120mil	120	°C	
RTI, strength			UL 746B
60mil	120 / *	°C	
120mil	130	°C	
Flammability	dry / cond	Unit	Test Standard
Burning Behav. at 60mil nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10

To find out more, visit [DuPont Performance Polymers](#) or contact nearest DuPont location.

North America

Asia Pacific

Europe/Middle East/Africa

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UL recognition	yes / *	-	UL 94
Burning Behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	3 / *	mm	IEC 60695-11-10
UL recognition	yes / *	-	UL 94
Burning Behav. 5V at thickness h	5VA / *	class	IEC 60695-11-20
Thickness tested	1.5 / *	mm	IEC 60695-11-20
UL recognition	yes / *	-	UL 94
Oxygen index	42 / *	%	ISO 4589-1/-2
Glow Wire Flammability Index			IEC 60695-2-12
30mil	960 / -	°C	
60mil	960 / -	°C	
120mil	960 / -	°C	
Glow Wire Ignition Temperature			IEC 60695-2-13
30mil	925 / -	°C	
60mil	925 / -	°C	
120mil	960 / -	°C	
FMVSS Class	DNI	-	ISO 3795 (FMVSS 302)
Electrical properties	dry / cond	Unit	Test Standard
Relative permittivity			IEC 62631-2-1
100Hz	3.5 / -	-	
1MHz	3.3 / -	-	
Dissipation factor			IEC 62631-2-1
100Hz	50 / -	E-4	
1MHz	135 / -	E-4	
Volume resistivity	>1E13 / -	Ohm*m	IEC 62631-3-1
Other properties	dry / cond	Unit	Test Standard
Density	1620 / -	kg/m ³	ISO 1183
VDA Properties	dry / cond	Unit	Test Standard
Emission of organic compounds	35	µgC/g	VDA 277
Odor test	4.5	class	VDA 270
Fogging, F-value (refraction)	95 / *	%	ISO 6452
Injection	Value	Unit	Test Standard
Drying Recommended	yes	-	-
Drying Temperature	≥100	°C	-
Drying Time, Dehumidified Dryer	6 - 8	h	-
Processing Moisture Content	≤0.1	%	-
Melt Temperature Optimum	325	°C	-
Min. melt temperature	320	°C	-
Max. melt temperature	330	°C	-
Min. mold temperature	90	°C	-
Max. mold temperature	110	°C	-

Characteristics

Processing	• Injection Molding		
Regional Availability	• North America	• Asia Pacific	• Near East/Africa
	• Europe	• South and Central America	• Global

Processing Texts

Injection molding

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

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Contact DuPont for Material Safety Data Sheet, general guides and/or additional information about ventilation, handling, purging, drying, etc. ISO Mechanical properties measured at 160 mil (Hytrel® measured at 80 mil), IEC Electrical properties measured at 80 mil, all ASTM properties measured at 120 mil, and test temperatures are 73°F unless otherwise stated.

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