

DuPont™ Zytel® HTNFR52G45BL 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® HTNFR52G45BL BK337 is a 45% 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-GF45FR(1 6+72)	-	ISO 1043
Part Marking Code	PA6T/66-GF45FR(1 6+72)	-	ISO 11469
Part Marking Code	>PPA-GF45FR<	-	SAE J1344
Rheological properties	dry / cond	Unit	Test Standard
Molding shrinkage, parallel	0.2 / -	%	ISO 294-4, 2577
Molding shrinkage, normal	0.6 / -	%	ISO 294-4, 2577
Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	17000 / 17000	MPa	ISO 527-1/-2
Stress at break	175 / 155	MPa	ISO 527-1/-2
Strain at break	1.3 / 1.5	%	ISO 527-1/-2
Flexural Modulus	15200 / 15200	MPa	ISO 178
Flexural Strength	290 / 260	MPa	ISO 178
Charpy impact strength			ISO 179/1eU
73 °F	42 / 36	kJ/m ²	
-22 °F	40 / 36	kJ/m ²	
Charpy notched impact strength			ISO 179/1eA
73 °F	13 / -	kJ/m ²	
-40 °F	13 / -	kJ/m ²	
Izod notched impact strength, 73 °F	12 / -	kJ/m ²	ISO 180/1A
Thermal properties	dry / cond	Unit	Test Standard
Melting temperature, first heat	310 / *	°C	ISO 11357-1/-3
Temp. of deflection under load			ISO 75-1/-2
260 psi	284 / *	°C	
65 psi	300 / *	°C	
Coeff. of linear therm. expansion, parallel	15 / *	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion			ISO 11359-1/-2
normal	50 / *	E-6/K	
Normal, -40-23 °C	50 / *	E-6/K	
Normal, 55-160 °C	75 / *	E-6/K	
Parallel, -40-23 °C	15 / *	E-6/K	
Parallel, 55-160 °C	8 / *	E-6/K	
RTI, electrical			UL 746B
30mil	140 / *	°C	
60mil	140 / *	°C	
120mil	140	°C	
RTI, impact			UL 746B
30mil	120	°C	
60mil	120 / *	°C	
120mil	120	°C	

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

North America

Asia Pacific

Europe/Middle East/Africa

DONGGUAN FUMEI PLASTICS CO.,LTD.

TEL: +86 0769-82339888 / 87798999

EMAIL: fumei@foomx.com



DuPont™ Zytel® HTNFR52G45BL BK337

HIGH PERFORMANCE POLYAMIDE RESIN

			UL 746B
RTI, strength			
30mil	120	°C	
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
UL recognition	yes / *	-	UL 94
Burning Behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.75 / *	mm	IEC 60695-11-10
UL recognition	yes / *	-	UL 94
Oxygen index	49 / *	%	ISO 4589-1/-2
Glow Wire Flammability Index, 40mil	960 / -	°C	IEC 60695-2-12
Glow Wire Ignition Temperature, 40mil	900 / -	°C	IEC 60695-2-13
Glow Wire Temperature, No Flame			IEC 60335-1
40mil	875 / -	°C	
60mil	875 / -	°C	
80mil	875 / -	°C	
120mil	875 / -	°C	
FMVSS Class	B	-	ISO 3795 (FMVSS 302)
Burning rate, Thickness 1 mm	<100	mm/min	ISO 3795 (FMVSS 302)
Electrical properties	dry / cond	Unit	Test Standard
Relative permittivity			IEC 62631-2-1
100Hz	3.9 / -	-	
1MHz	3.6 / -	-	
Dissipation factor			IEC 62631-2-1
100Hz	45 / -	E-4	
1MHz	112 / -	E-4	
Volume resistivity	>1E13 / -	Ohm*m	IEC 62631-3-1
Electric strength	31 / -	kV/mm	IEC 60243-1
Comparative tracking index	500 / -	-	IEC 60112
Dissipation Factor, 23 °C			ASTM D 2520 B
1 GHz	110 / -	E-4	
10 GHz	110 / -	E-4	
Other properties	dry / cond	Unit	Test Standard
Density	1760 / -	kg/m ³	ISO 1183
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
Delivery form	• Pellets
Additives	• Lubricants
Regional Availability	• Release agent
	• North America
	• Asia Pacific
	• South and Central America
	• Near East/Africa
	• Global

Processing Texts

Injection molding

Revised: 2017-08-17

Page: 2 of 3

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

North America

DONGGUAN FUMEI PLASTICS CO.,LTD.

EMAIL: fumei@foomx.com

Asia Pacific

TEL: +86 0769-82339888 / 87798999

Europe/Middle East/Africa



Copyright 2017 DuPont. The DuPont Oval Logo is a trademark or registered trademark of E.I. du Pont de Nemours and Company or its affiliates. All rights reserved.

DuPont™ Zytel® HTNFR52G45BL BK337

HIGH PERFORMANCE POLYAMIDE RESIN

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.

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.

The information set forth herein is furnished free of charge and is based on technical data that DuPont believes to be reliable and falls within the normal range of properties. It is intended for use by persons having technical skill, at their own discretion and risk. This data should not be used to establish specification limits nor used alone as the basis of design. Handling precaution information is given with the understanding that those using it will satisfy themselves that their particular conditions of use present no health or safety hazards. Since conditions of product use and disposal are outside our control, we make no warranties, express or implied, and assume no liability in connection with any use of this information. As with any product, evaluation under end-use conditions prior to specification is essential. Nothing herein is to be taken as a license to operate or a recommendation to infringe on patents. Caution: Do not use in medical applications involving permanent implantation in the human body. For other medical applications, discuss with your DuPont customer representative and read Medical Caution H-50103-5.

Copyright © 2017 DuPont or its affiliates. All Rights Reserved. The DuPont Oval Logo, DuPont™, The miracles of science™ and all products denoted with ® or ™ are registered trademarks or trademarks of E.I. du Pont de Nemours and Company or its affiliates.

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

North America

DONGGUAN FUMEI PLASTICS CO.,LTD.

EMAIL: fumei@foomx.com

Asia Pacific

TEL: +86 0769-82339888 / 87798999

Europe/Middle East/Africa

