

DuPont Performance Polymers Zytel® HTN FR52G45BL BK337 Polyphthalamide (PPA) (Unverified Data**)

Category : Polymer , Thermoplastic , Polyphthalamide (PPA) , Polyphthalamide (PPA), 50% Glass Fiber Reinforced

Material Notes:

45% Glass Reinforced Flame Retardant PPA High Performance Polyamide Zytel HTNFR52G45BL BK337 is a 45% glass reinforced flame retardant lubricated high performance polyamide resin that has been developed for connector applications. Information provided by DuPont Performance Polymers

Order this product through the following link:

http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Zytel-HTN-FR52G45BL-BK337-Polyphthalamide-PPA-Unverified-Data.php

Physical Properties	Metric	English	Comments
Density	1.76 g/cc	0.0636 lb/in ³	DAM; ISO 1183
Linear Mold Shrinkage, Flow	0.0020 cm/cm	0.0020 in/in	DAM; ISO 294-4 2577
Linear Mold Shrinkage, Transverse	0.0060 cm/cm	0.0060 in/in	DAM; ISO 294-4 2577

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	155 MPa	22500 psi	50%RH; ISO 527-1/-2
	175 MPa	25400 psi	DAM; ISO 527-1/-2
Elongation at Break	1.3 %	1.3 %	DAM; ISO 527-1/-2
	1.5 %	1.5 %	50%RH; ISO 527-1/-2
Tensile Modulus	17.0 GPa	2470 ksi	DAM; ISO 527-1/-2
	17.0 GPa	2470 ksi	50%RH; ISO 527-1/-2
Flexural Strength	260 MPa	37700 psi	50%RH; ISO 178
	290 MPa	42100 psi	DAM; ISO 178
Flexural Modulus	15.2 GPa	2200 ksi	DAM; ISO 178
	15.2 GPa	2200 ksi	50%RH; ISO 178
Izod Impact, Notched (ISO)	12.0 kJ/m ²	5.71 ft-lb/in ²	DAM; ISO 180/1A
Charpy Impact Unnotched	3.60 J/cm ²	17.1 ft-lb/in ²	50%RH; ISO 179/1eU
	4.20 J/cm ²	20.0 ft-lb/in ²	DAM; ISO 179/1eU
	3.60 J/cm ² @Temperature -30.0 °C	17.1 ft-lb/in ² @Temperature -22.0 °F	50%RH; ISO 179/1eU

Mechanical Properties	Metric ^{lb/in²}	English ^{lb/in²}	Comments
	@Temperature -30.0 °C	@Temperature -22.0 °F	DAM; ISO 179/1eA
Charpy Impact, Notched	1.30 J/cm²	6.19 ft-lb/in²	DAM; ISO 179/1eA
	1.30 J/cm²	6.19 ft-lb/in²	DAM; ISO 179/1eA
	@Temperature -40.0 °C	@Temperature -40.0 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	15.0 µm/m-°C	8.33 µin/in-°F	DAM; ISO 11359-1/-2
	8.00 µm/m-°C	4.44 µin/in-°F	
	@Temperature 55.0 - 160 °C	@Temperature 131 - 320 °F	DAM; ISO 11359-1/-2
	15.0 µm/m-°C	8.33 µin/in-°F	
	@Temperature -40.0 - 23.0 °C	@Temperature -40.0 - 73.4 °F	DAM; ISO 11359-1/-2
CTE, linear, Transverse to Flow	50.0 µm/m-°C	27.8 µin/in-°F	DAM; ISO 11359-1/-2
	50.0 µm/m-°C	27.8 µin/in-°F	
	@Temperature -40.0 - 23.0 °C	@Temperature -40.0 - 73.4 °F	DAM; ISO 11359-1/-2
	75.0 µm/m-°C	41.7 µin/in-°F	
	@Temperature 55.0 - 160 °C	@Temperature 131 - 320 °F	DAM; ISO 11359-1/-2
Melting Point	310 °C	590 °F	DAM; first heat; ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	300 °C	572 °F	DAM; ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	284 °C	543 °F	DAM; ISO 75-1/-2
Flammability, UL94	V-0	V-0	
	@Thickness 1.50 mm	@Thickness 0.0591 in	DAM; IEC 60695-11-10
	V-0	V-0	
	@Thickness 0.800 mm	@Thickness 0.0315 in	DAM; IEC 60695-11-10
Oxygen Index	49 %	49 %	DAM; ISO 4589-1/-2

Electrical Properties	Metric	English	Comments
Volume Resistivity	>= 1.00e+15 ohm-cm	>= 1.00e+15 ohm-cm	DAM; IEC 60093

Electrical Properties Dielectric Constant	3.6 Metric	3.6 English	Comments DAM; IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	3.9	3.9	DAM; IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	31.0 kV/mm	787 kV/in	DAM; IEC 60243-1
Dissipation Factor	0.0045	0.0045	DAM; IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
	0.0112	0.0112	DAM; IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Comparative Tracking Index	500 V	500 V	DAM; IEC 60112

Descriptive Properties	Value	Comments
Additives	Lubricants	
	Release agent	
Delivery Form	Pellets	
Part Marking Code	>PA6T/66-GF45FR<	ISO 11469
	>PPA-GF45FR<	SAE J1344
Processing	Injection Moulding	
Regional Availability	Asia Pacific	
	Europe	
	Global	
	Near East/Africa	
	North America	
	South and Central America	
UL recognition	UL	DAM

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