

## DuPont Performance Polymers Zytel® HTN 51G45HSL BK083 Polyphthalamide (PPA) (Unverified Data\*\*)

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

### Material Notes:

45% Glass Reinforced PPA High Performance Polyamide Zytel HTN51G45HSL BK083 is a 45% glass reinforced heat stabilized lubricated high performance polyamide resin. It is also a PPA resin. Information provided by DuPont Performance Polymers

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_DuPont-Performance-Polymers-Zytel-HTN-51G45HSL-BK083-Polyphthalamide-PPA-nbspUnverified-Data.php](http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Zytel-HTN-51G45HSL-BK083-Polyphthalamide-PPA-nbspUnverified-Data.php)

Physical Properties	Metric	English	Comments
Density	1.57 g/cc	0.0567 lb/in <sup>3</sup>	DAM; ISO 1183
Water Absorption	3.6 % @Thickness 2.00 mm	3.6 % @Thickness 0.0787 in	DAM; Sim. to ISO 62
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	230 MPa	33400 psi	50%RH; ISO 527-1/-2
	240 MPa	34800 psi	DAM; ISO 527-1/-2
Elongation at Break	2.0 %	2.0 %	50%RH; ISO 527-1/-2
	2.3 %	2.3 %	DAM; ISO 527-1/-2
Tensile Modulus	15.0 GPa	2180 ksi	DAM; ISO 527-1/-2
	15.5 GPa	2250 ksi	50%RH; ISO 527-1/-2
Flexural Modulus	13.2 GPa	1910 ksi	DAM; ISO 178
Izod Impact, Notched (ISO)	12.0 kJ/m <sup>2</sup>	5.71 ft-lb/in <sup>2</sup>	DAM; ISO 180/1A
	13.0 kJ/m <sup>2</sup> @Temperature -40.0 °C	6.19 ft-lb/in <sup>2</sup> @Temperature -40.0 °F	DAM; ISO 180/1A
Charpy Impact Unnotched	8.50 J/cm <sup>2</sup>	40.4 ft-lb/in <sup>2</sup>	DAM; ISO 179/1eU
	8.00 J/cm <sup>2</sup> @Temperature -30.0 °C	38.1 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	DAM; ISO 179/1eU
Charpy Impact, Notched	1.20 J/cm <sup>2</sup>	5.71 ft-lb/in <sup>2</sup>	DAM; ISO 179/1eA

Mechanical Properties	Metric	English	Comments
	@Temperature -30.0 °C	@Temperature -22.0 °F	DAM; ISO 179/1eA

Thermal Properties	Metric	English	Comments
Melting Point	300 °C	572 °F	DAM; first heat; ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	285 °C	545 °F	DAM; ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	265 °C	509 °F	DAM; ISO 75-1/-2
Flammability, UL94	HB	HB	DAM; IEC 60695-11-10
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	HB	HB	DAM; IEC 60695-11-10
	@Thickness 0.800 mm	@Thickness 0.0315 in	

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

Descriptive Properties	Value	Comments
Part Marking Code	>PA6T/XT-GF45<	ISO 11469
	>PPA-GF45<	SAE J1344
Processing	Injection Moulding	
Regional Availability	Asia Pacific	
	Europe	
	Global	
	Near East/Africa	
	North America	
	South and Central America	
Special Characteristics	Heat stabilised or stable to heat	
UL recognition	UL	DAM

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