

DuPont Performance Polymers Zytel® HTN 92G35DH2 BK083 Polyphthalamide (PPA) (Unverified Data**)

Category : Polymer , Thermoplastic , Polyphthalamide (PPA) , Polyphthalamide (PPA), 40% Glass Fiber Reinforced

Material Notes:

35% Glass Reinforced PPA High Performance Polyamide with DuPont Zytel HTN92G35DH2 BK083 is a 35% glass reinforced high performance polyamide resin using DuPont SHIELD Technology with high flow and excellent retention of properties after aging at elevated temperature. Information provided by DuPont Performance Polymers

Order this product through the following link:

http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Zytel-HTN-92G35DH2-BK083-Polyphthalamide-PPA-Unverified-Data.php

Physical Properties	Metric	English	Comments
Density	1.44 g/cc	0.0520 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	0.0090 cm/cm	0.0090 in/in	DAM; ISO 294-4 2577

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	157 MPa	22800 psi	50%RH; ISO 527-1/-2
	200 MPa	29000 psi	DAM; ISO 527-1/-2
Tensile Stress	1.09 MPa	158 psi	50%RH; ISO 11403-1 -2
	@Strain 0.0400 %, Temperature -20.0 °C	@Strain 0.0400 %, Temperature -4.00 °F	
	1.63 MPa	236 psi	50%RH; ISO 11403-1 -2
	@Strain 0.0400 %, Temperature 40.0 °C	@Strain 0.0400 %, Temperature 104 °F	
	1.93 MPa	280 psi	50%RH; ISO 11403-1 -2
	@Strain 0.0400 %, Temperature 0.000 °C	@Strain 0.0400 %, Temperature 32.0 °F	
	3.26 MPa	473 psi	50%RH; ISO 11403-1 -2
	@Strain 0.0500 %, Temperature 150 °C	@Strain 0.0500 %, Temperature 302 °F	
	3.66 MPa	531 psi	DAM; ISO 11403-1 -2
	@Strain 0.0500 %, Temperature 180 °C	@Strain 0.0500 %, Temperature 356 °F	
	3.86 MPa	560 psi	DAM; ISO 11403-1 -2
	@Strain 0.0500 %,	@Strain 0.0500 %,	

Mechanical Properties	Temperature 150 °C Metric	Temperature 302 °F English	Comments
	3.89 MPa	564 psi	
	@Strain 0.0400 %, Temperature 90.0 °C	@Strain 0.0400 %, Temperature 194 °F	50%RH; ISO 11403-1 -2
	4.33 MPa	628 psi	
	@Strain 0.0400 %, Temperature 90.0 °C	@Strain 0.0400 %, Temperature 194 °F	DAM; ISO 11403-1 -2
	4.81 MPa	698 psi	
	@Strain 0.0300 %, Temperature 23.0 °C	@Strain 0.0300 %, Temperature 73.4 °F	50%RH; ISO 11403-1 -2
	6.15 MPa	892 psi	
	@Strain 0.0500 %, Temperature 40.0 °C	@Strain 0.0500 %, Temperature 104 °F	DAM; ISO 11403-1 -2
	9.64 MPa	1400 psi	
	@Strain 0.180 %, Temperature 150 °C	@Strain 0.180 %, Temperature 302 °F	50%RH; ISO 11403-1 -2
	10.01 MPa	1452 psi	
	@Strain 0.150 %, Temperature 40.0 °C	@Strain 0.150 %, Temperature 104 °F	50%RH; ISO 11403-1 -2
	10.79 MPa	1565 psi	
	@Strain 0.150 %, Temperature 90.0 °C	@Strain 0.150 %, Temperature 194 °F	50%RH; ISO 11403-1 -2
	11.15 MPa	1617 psi	
	@Strain 0.210 %, Temperature 180 °C	@Strain 0.210 %, Temperature 356 °F	DAM; ISO 11403-1 -2
	11.8 MPa	1710 psi	
	@Strain 0.100 %, Temperature 23.0 °C	@Strain 0.100 %, Temperature 73.4 °F	DAM; ISO 11403-1 -2
	12.04 MPa	1746 psi	
	@Strain 0.210 %, Temperature 150 °C	@Strain 0.210 %, Temperature 302 °F	DAM; ISO 11403-1 -2
	12.11 MPa	1756 psi	
	@Strain 0.100 %, Temperature 0.000 °C	@Strain 0.100 %, Temperature 32.0 °F	DAM; ISO 11403-1 -2
	12.39 MPa	1797 psi	
	@Strain 0.130 %, Temperature -20.0 °C	@Strain 0.130 %, Temperature -4.00 °F	50%RH; ISO 11403-1 -2
	13.51 MPa	1959 psi	

Mechanical Properties	Metric	English	Comments
	@Strain 0.100 %, Temperature -20.0 °C	@Strain 0.100 %, Temperature -4.00 °F	DAM; ISO 11403-1 -2
	13.53 MPa	1962 psi	50%RH; ISO 11403-1 -2
	@Strain 0.130 %, Temperature 0.000 °C	@Strain 0.130 %, Temperature 32.0 °F	
	13.92 MPa	2019 psi	DAM; ISO 11403-1 -2
	@Strain 0.180 %, Temperature 90.0 °C	@Strain 0.180 %, Temperature 194 °F	
	14.58 MPa	2115 psi	50%RH; ISO 11403-1 -2
	@Strain 0.130 %, Temperature 23.0 °C	@Strain 0.130 %, Temperature 73.4 °F	
	17.79 MPa	2580 psi	50%RH; ISO 11403-1 -2
	@Strain 0.250 %, Temperature 40.0 °C	@Strain 0.250 %, Temperature 104 °F	
	18.78 MPa	2724 psi	DAM; ISO 11403-1 -2
	@Strain 0.160 %, Temperature 40.0 °C	@Strain 0.160 %, Temperature 104 °F	
	23.5 MPa	3410 psi	50%RH; ISO 11403-1 -2
	@Strain 0.210 %, Temperature 23.0 °C	@Strain 0.210 %, Temperature 73.4 °F	
	23.62 MPa	3426 psi	50%RH; ISO 11403-1 -2
	@Strain 0.220 %, Temperature -20.0 °C	@Strain 0.220 %, Temperature -4.00 °F	
	23.87 MPa	3462 psi	50%RH; ISO 11403-1 -2
	@Strain 0.380 %, Temperature 90.0 °C	@Strain 0.380 %, Temperature 194 °F	
	24.87 MPa	3607 psi	50%RH; ISO 11403-1 -2
	@Strain 0.230 %, Temperature 0.000 °C	@Strain 0.230 %, Temperature 32.0 °F	
	25.61 MPa	3714 psi	50%RH; ISO 11403-1 -2
	@Strain 0.570 %, Temperature 150 °C	@Strain 0.570 %, Temperature 302 °F	
	31.2 MPa	4530 psi	DAM; ISO 11403-1 -2
	@Strain 0.280 %, Temperature 40.0 °C	@Strain 0.280 %, Temperature 104 °F	
	33.89 MPa	4915 psi	DAM; ISO 11403-1 -2
	@Strain 0.470 %, Temperature 90.0 °C	@Strain 0.470 %, Temperature 194 °F	

Mechanical Properties	Metric ¹ MPa	English ¹	Comments
	@Strain 0.760 %, Temperature 180 °C	@Strain 0.760 %, Temperature 356 °F	DAM; ISO 11403-1 -2
	35.05 MPa	5084 psi	
	@Strain 0.680 %, Temperature 150 °C	@Strain 0.680 %, Temperature 302 °F	DAM; ISO 11403-1 -2
	45.07 MPa	6537 psi	
	@Strain 1.27 %, Temperature 150 °C	@Strain 1.27 %, Temperature 302 °F	50%RH; ISO 11403-1 -2
	46.39 MPa	6728 psi	
	@Strain 0.400 %, Temperature 23.0 °C	@Strain 0.400 %, Temperature 73.4 °F	DAM; ISO 11403-1 -2
	47.54 MPa	6895 psi	
	@Strain 0.400 %, Temperature 0.000 °C	@Strain 0.400 %, Temperature 32.0 °F	DAM; ISO 11403-1 -2
	48.19 MPa	6989 psi	
	@Strain 0.400 %, Temperature -20.0 °C	@Strain 0.400 %, Temperature -4.00 °F	DAM; ISO 11403-1 -2
	49.11 MPa	7123 psi	
	@Strain 1.28 %, Temperature 180 °C	@Strain 1.28 %, Temperature 356 °F	DAM; ISO 11403-1 -2
	49.13 MPa	7126 psi	
	@Strain 0.470 %, Temperature 23.0 °C	@Strain 0.470 %, Temperature 73.4 °F	50%RH; ISO 11403-1 -2
	51.05 MPa	7404 psi	
	@Strain 1.00 %, Temperature 90.0 °C	@Strain 1.00 %, Temperature 194 °F	50%RH; ISO 11403-1 -2
	51.45 MPa	7462 psi	
	@Strain 1.13 %, Temperature 150 °C	@Strain 1.13 %, Temperature 302 °F	DAM; ISO 11403-1 -2
	53.59 MPa	7773 psi	
	@Strain 0.820 %, Temperature 90.0 °C	@Strain 0.820 %, Temperature 194 °F	DAM; ISO 11403-1 -2
	53.59 MPa	7773 psi	
	@Strain 0.770 %, Temperature 40.0 °C	@Strain 0.770 %, Temperature 104 °F	50%RH; ISO 11403-1 -2
	54.31 MPa	7877 psi	

Mechanical Properties	Metric @Strain 0.500 %, Temperature 40.0 °C	English @Strain 0.500 %, Temperature 104 °F	DAM: ISO 11403-1 -2 Comments
	65.88 MPa	9555 psi	
	@Strain 0.590 %, Temperature -20.0 °C	@Strain 0.590 %, Temperature -4.00 °F	50%RH; ISO 11403-1 -2
	68.68 MPa	9961 psi	
	@Strain 0.610 %, Temperature 0.000 °C	@Strain 0.610 %, Temperature 32.0 °F	50%RH; ISO 11403-1 -2
	69.19 MPa	10040 psi	
	@Strain 3.60 %, Temperature 150 °C	@Strain 3.60 %, Temperature 302 °F	50%RH; ISO 11403-1 -2
	71.7 MPa	10400 psi	
	@Strain 5.15 %, Temperature 150 °C	@Strain 5.15 %, Temperature 302 °F	50%RH; ISO 11403-1 -2
	78.06 MPa	11320 psi	
	@Strain 3.71 %, Temperature 180 °C	@Strain 3.71 %, Temperature 356 °F	DAM; ISO 11403-1 -2
	80.7 MPa	11700 psi	
	@Strain 0.700 %, Temperature 23.0 °C	@Strain 0.700 %, Temperature 73.4 °F	DAM; ISO 11403-1 -2
	82.68 MPa	11990 psi	
	@Strain 5.71 %, Temperature 180 °C	@Strain 5.71 %, Temperature 356 °F	DAM; ISO 11403-1 -2
	82.94 MPa	12030 psi	
	@Strain 0.700 %, Temperature 0.000 °C	@Strain 0.700 %, Temperature 32.0 °F	DAM; ISO 11403-1 -2
	83.65 MPa	12130 psi	
	@Strain 0.700 %, Temperature -20.0 °C	@Strain 0.700 %, Temperature -4.00 °F	DAM; ISO 11403-1 -2
	87.17 MPa	12640 psi	
	@Strain 3.31 %, Temperature 150 °C	@Strain 3.31 %, Temperature 302 °F	DAM; ISO 11403-1 -2
	89.88 MPa	13040 psi	
	@Strain 3.35 %, Temperature 90.0 °C	@Strain 3.35 %, Temperature 194 °F	50%RH; ISO 11403-1 -2
	92.52 MPa	13420 psi	
	@Strain 5.25 %, Temperature 150 °C	@Strain 5.25 %, Temperature 302 °F	DAM; ISO 11403-1 -2

Mechanical Properties	111.22 MPa Metric	16131 psi English	Comments
	@Strain 2.38 %, Temperature 90.0 °C	@Strain 2.38 %, Temperature 194 °F	DAM, ISO 11403-1 -2
	113.32 MPa @Strain 1.00 %, Temperature 23.0 °C	16436 psi @Strain 1.00 %, Temperature 73.4 °F	DAM; ISO 11403-1 -2
	115.15 MPa @Strain 1.00 %, Temperature 0.000 °C	16701 psi @Strain 1.00 %, Temperature 32.0 °F	DAM; ISO 11403-1 -2

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