

## DuPont Performance Polymers Zytel® HTN 52G45HSL NC010 Polyphthalamide (PPA)

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

### Material Notes:

Zytel® HTN52G45HSL NC010 is a 45% glass reinforced, heat stabilized, lubricated high performance polyamide resin that can be molded in water heated molds. 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-52G45HSL-NC010-Polyphthalamide-PPA.php](http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Zytel-HTN-52G45HSL-NC010-Polyphthalamide-PPA.php)

Physical Properties	Metric	English	Comments
Density	1.56 g/cc	0.0564 lb/in <sup>3</sup>	DAM; ISO 1183
Filler Content	45 %	45 %	DAM

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	240 MPa	34800 psi	DAM; ISO 527
	@Temperature 23.0 °C	@Temperature 73.4 °F	
Tensile Stress	11.26 MPa	1633 psi	DAM; ISO 11403-1/-2
	@Strain 0.100 %, Temperature 150 °C	@Strain 0.100 %, Temperature 302 °F	
	11.39 MPa	1652 psi	DAM; ISO 11403-1/-2
	@Strain 0.100 %, Temperature 100 °C	@Strain 0.100 %, Temperature 212 °F	
	13.35 MPa	1936 psi	DAM; ISO 11403-1/-2
	@Strain 0.100 %, Temperature -40.0 °C	@Strain 0.100 %, Temperature -40.0 °F	
	13.87 MPa	2012 psi	DAM; ISO 11403-1/-2
	@Strain 0.100 %, Temperature 23.0 °C	@Strain 0.100 %, Temperature 73.4 °F	
	19.7 MPa	2860 psi	DAM; ISO 11403-1/-2
	@Strain 0.200 %, Temperature 150 °C	@Strain 0.200 %, Temperature 302 °F	
	22.49 MPa	3262 psi	DAM; ISO 11403-1/-2
	@Strain 0.200 %, Temperature 100 °C	@Strain 0.200 %, Temperature 212 °F	
	26.35 MPa	3822 psi	DAM; ISO 11403-1/-2
	@Strain 0.200 %, Temperature -40.0 °C	@Strain 0.200 %, Temperature -40.0 °F	

Mechanical Properties	Metric MPa	English psi	Comments
	@Strain 0.300 %, Temperature 150 °C	@Strain 0.300 %, Temperature 302 °F	DAM; ISO 11403-1/-2
	27.44 MPa	3980 psi	
	@Strain 0.200 %, Temperature 23.0 °C	@Strain 0.200 %, Temperature 73.4 °F	DAM; ISO 11403-1/-2
	31.83 MPa	4617 psi	
	@Strain 0.400 %, Temperature 150 °C	@Strain 0.400 %, Temperature 302 °F	DAM; ISO 11403-1/-2
	32.1 MPa	4660 psi	
	@Strain 0.300 %, Temperature 100 °C	@Strain 0.300 %, Temperature 212 °F	DAM; ISO 11403-1/-2
	38.68 MPa	5610 psi	
	@Strain 0.500 %, Temperature 150 °C	@Strain 0.500 %, Temperature 302 °F	DAM; ISO 11403-1/-2
	39.23 MPa	5690 psi	
	@Strain 0.400 %, Temperature 100 °C	@Strain 0.400 %, Temperature 212 °F	DAM; ISO 11403-1/-2
	39.5 MPa	5730 psi	
	@Strain 0.300 %, Temperature -40.0 °C	@Strain 0.300 %, Temperature -40.0 °F	DAM; ISO 11403-1/-2
	40.65 MPa	5896 psi	
	@Strain 0.300 %, Temperature 23.0 °C	@Strain 0.300 %, Temperature 73.4 °F	DAM; ISO 11403-1/-2
	43.1 MPa	6250 psi	
	@Strain 0.600 %, Temperature 150 °C	@Strain 0.600 %, Temperature 302 °F	DAM; ISO 11403-1/-2
	47.66 MPa	6913 psi	
	@Strain 0.700 %, Temperature 150 °C	@Strain 0.700 %, Temperature 302 °F	DAM; ISO 11403-1/-2
	48.97 MPa	7103 psi	
	@Strain 0.500 %, Temperature 100 °C	@Strain 0.500 %, Temperature 212 °F	DAM; ISO 11403-1/-2
	51.26 MPa	7435 psi	
	@Strain 0.400 %, Temperature -40.0 °C	@Strain 0.400 %, Temperature -40.0 °F	DAM; ISO 11403-1/-2
	51.57 MPa	7480 psi	

Mechanical Properties	@Strain 0.800 %, Metric Temperature 150 °C	@Strain 0.800 %, English Temperature 302 °F	DAM; ISO 11403-1/-2 Comments
	52.74 MPa	7649 psi	
	@Strain 0.400 %, Temperature 23.0 °C	@Strain 0.400 %, Temperature 73.4 °F	DAM; ISO 11403-1/-2
	55.16 MPa	8000 psi	
	@Strain 0.900 %, Temperature 150 °C	@Strain 0.900 %, Temperature 302 °F	DAM; ISO 11403-1/-2
	56.14 MPa	8142 psi	
	@Strain 0.600 %, Temperature 100 °C	@Strain 0.600 %, Temperature 212 °F	DAM; ISO 11403-1/-2
	58.51 MPa	8486 psi	
	@Strain 1.00 %, Temperature 150 °C	@Strain 1.00 %, Temperature 302 °F	DAM; ISO 11403-1/-2
	61.76 MPa	8958 psi	
	@Strain 1.10 %, Temperature 150 °C	@Strain 1.10 %, Temperature 302 °F	DAM; ISO 11403-1/-2
	62.92 MPa	9126 psi	
	@Strain 0.700 %, Temperature 100 °C	@Strain 0.700 %, Temperature 212 °F	DAM; ISO 11403-1/-2
	64.75 MPa	9391 psi	
	@Strain 1.20 %, Temperature 150 °C	@Strain 1.20 %, Temperature 302 °F	DAM; ISO 11403-1/-2
	67.52 MPa	9793 psi	
	@Strain 1.30 %, Temperature 150 °C	@Strain 1.30 %, Temperature 302 °F	DAM; ISO 11403-1/-2
	68.05 MPa	9870 psi	
	@Strain 0.500 %, Temperature -40.0 °C	@Strain 0.500 %, Temperature -40.0 °F	DAM; ISO 11403-1/-2
	69.09 MPa	10020 psi	
	@Strain 0.800 %, Temperature 100 °C	@Strain 0.800 %, Temperature 212 °F	DAM; ISO 11403-1/-2
	69.39 MPa	10060 psi	
	@Strain 0.500 %, Temperature 23.0 °C	@Strain 0.500 %, Temperature 73.4 °F	DAM; ISO 11403-1/-2
	70.11 MPa	10170 psi	
	@Strain 1.40 %, Temperature 150 °C	@Strain 1.40 %, Temperature 302 °F	DAM; ISO 11403-1/-2

Mechanical Properties	72.55 MPa Metric	10520 psi English	Comments DAM; ISO 11403-1/-2
	@Strain 1.50 %, Temperature 150 °C	@Strain 1.50 %, Temperature 302 °F	
	<b>74.58 MPa</b>	<b>10820 psi</b>	DAM; ISO 11403-1/-2
	@Strain 0.900 %, Temperature 100 °C	@Strain 0.900 %, Temperature 212 °F	
	<b>74.88 MPa</b>	<b>10860 psi</b>	DAM; ISO 11403-1/-2
	@Strain 1.60 %, Temperature 150 °C	@Strain 1.60 %, Temperature 302 °F	
	<b>76.99 MPa</b>	<b>11170 psi</b>	DAM; ISO 11403-1/-2
	@Strain 1.70 %, Temperature 150 °C	@Strain 1.70 %, Temperature 302 °F	
	<b>78.99 MPa</b>	<b>11460 psi</b>	DAM; ISO 11403-1/-2
	@Strain 1.80 %, Temperature 150 °C	@Strain 1.80 %, Temperature 302 °F	
	<b>79.57 MPa</b>	<b>11540 psi</b>	DAM; ISO 11403-1/-2
	@Strain 1.00 %, Temperature 100 °C	@Strain 1.00 %, Temperature 212 °F	
	<b>80.87 MPa</b>	<b>11730 psi</b>	DAM; ISO 11403-1/-2
	@Strain 1.90 %, Temperature 150 °C	@Strain 1.90 %, Temperature 302 °F	
	<b>82.63 MPa</b>	<b>11980 psi</b>	DAM; ISO 11403-1/-2
	@Strain 2.00 %, Temperature 150 °C	@Strain 2.00 %, Temperature 302 °F	
	<b>83.18 MPa</b>	<b>12060 psi</b>	DAM; ISO 11403-1/-2
	@Strain 0.600 %, Temperature -40.0 °C	@Strain 0.600 %, Temperature -40.0 °F	
	<b>83.56 MPa</b>	<b>12120 psi</b>	DAM; ISO 11403-1/-2
	@Strain 0.600 %, Temperature 23.0 °C	@Strain 0.600 %, Temperature 73.4 °F	
	<b>84.26 MPa</b>	<b>12220 psi</b>	DAM; ISO 11403-1/-2
	@Strain 2.10 %, Temperature 150 °C	@Strain 2.10 %, Temperature 302 °F	
	<b>84.27 MPa</b>	<b>12220 psi</b>	DAM; ISO 11403-1/-2
	@Strain 1.10 %, Temperature 100 °C	@Strain 1.10 %, Temperature 212 °F	
	<b>85.77 MPa</b>	<b>12440 psi</b>	DAM; ISO 11403-1/-2
	@Strain 2.20 %,	@Strain 2.20 %,	

Mechanical Properties	Temperature 150 °C Metric	Temperature 302 °F English	Comments
	87.21 MPa @Strain 2.30 %, Temperature 150 °C	12650 psi @Strain 2.30 %, Temperature 302 °F	DAM; ISO 11403-1/-2
	88.55 MPa @Strain 2.40 %, Temperature 150 °C	12840 psi @Strain 2.40 %, Temperature 302 °F	DAM; ISO 11403-1/-2
	88.63 MPa @Strain 1.20 %, Temperature 100 °C	12850 psi @Strain 1.20 %, Temperature 212 °F	DAM; ISO 11403-1/-2
	89.77 MPa @Strain 2.50 %, Temperature 150 °C	13020 psi @Strain 2.50 %, Temperature 302 °F	DAM; ISO 11403-1/-2
	90.92 MPa @Strain 2.60 %, Temperature 150 °C	13190 psi @Strain 2.60 %, Temperature 302 °F	DAM; ISO 11403-1/-2
	91.99 MPa @Strain 2.70 %, Temperature 150 °C	13340 psi @Strain 2.70 %, Temperature 302 °F	DAM; ISO 11403-1/-2
	92.88 MPa @Strain 1.30 %, Temperature 100 °C	13470 psi @Strain 1.30 %, Temperature 212 °F	DAM; ISO 11403-1/-2
	93.01 MPa @Strain 2.80 %, Temperature 150 °C	13490 psi @Strain 2.80 %, Temperature 302 °F	DAM; ISO 11403-1/-2
	93.92 MPa @Strain 0.900 %, Temperature 150 °C	13620 psi @Strain 0.900 %, Temperature 302 °F	DAM; ISO 11403-1/-2
	94.71 MPa @Strain 3.00 %, Temperature 150 °C	13740 psi @Strain 3.00 %, Temperature 302 °F	DAM; ISO 11403-1/-2
	96.69 MPa @Strain 1.40 %, Temperature 100 °C	14020 psi @Strain 1.40 %, Temperature 212 °F	DAM; ISO 11403-1/-2
	97.41 MPa @Strain 0.700 %, Temperature 23.0 °C	14130 psi @Strain 0.700 %, Temperature 73.4 °F	DAM; ISO 11403-1/-2
	98.06 MPa	14220 psi	

Mechanical Properties	Metric	English	DAM; ISO 11403-1/-2 Comments
	@Strain 0.700 %, Temperature -40.0 °C	@Strain 0.700 %, Temperature -40.0 °F	
	100.31 MPa	14549 psi	
	@Strain 1.50 %, Temperature 100 °C	@Strain 1.50 %, Temperature 212 °F	DAM; ISO 11403-1/-2
	103.72 MPa	15043 psi	
	@Strain 1.60 %, Temperature 100 °C	@Strain 1.60 %, Temperature 212 °F	DAM; ISO 11403-1/-2
	106.56 MPa	15455 psi	
	@Strain 1.70 %, Temperature 100 °C	@Strain 1.70 %, Temperature 212 °F	DAM; ISO 11403-1/-2

## Contact Songhan Plastic Technology Co.,Ltd.

Website : [www.lookpolymers.com](http://www.lookpolymers.com)

Email : [sales@lookpolymers.com](mailto:sales@lookpolymers.com)

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China