

## DuPont Performance Polymers Zytel® 70G33HS1L NC010 Nylon 66 (Unverified Data\*\*)

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, 30% Glass Fiber Filled

### Material Notes:

33% Glass Reinforced Heat Stabilized Polyamide 66 Zytel 70G33HS1L NC010 is a 33% glass fiber reinforced heat stabilized polyamide 66 resin for injection molding. Information provided by DuPont Performance Polymers

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_DuPont-Performance-Polymers-Zytel-70G33HS1L-NC010-Nylon-66-nbspUnverified-Data.php](http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Zytel-70G33HS1L-NC010-Nylon-66-nbspUnverified-Data.php)

Physical Properties	Metric	English	Comments
Density	1.39 g/cc	0.0502 lb/in <sup>3</sup>	DAM; ISO 1183
Water Absorption	5.7 %	5.7 %	DAM; Sim. to ISO 62
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Moisture Absorption	1.80 %	1.80 %	DAM; Sim. to ISO 62
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Water Absorption at Saturation	1.2 %	1.2 %	DAM; Immersion 24h; ASTM D570
Viscosity	198170 cP	198170 cP	ISO 11403-1 -2
	@Shear Rate 500 1/s, Temperature 295 °C	@Shear Rate 500 1/s, Temperature 563 °F	
Viscosity Test	130 cm <sup>3</sup> /g	130 cm <sup>3</sup> /g	DAM; ISO 307 1157 1628
Linear Mold Shrinkage, Flow	0.0030 cm/cm	0.0030 in/in	DAM; ISO 294-4 2577
Linear Mold Shrinkage, Transverse	0.011 cm/cm	0.011 in/in	DAM; ISO 294-4 2577

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	140 MPa	20300 psi	50%RH; ISO 527-1/-2
	200 MPa	29000 psi	DAM; ISO 527-1/-2
Tensile Stress	13.24 MPa	1920 psi	DAM; ISO 11403-1 -2
	@Strain 0.300 %, Temperature 150 °C	@Strain 0.300 %, Temperature 302 °F	
	20.91 MPa	3033 psi	DAM; ISO 11403-1 -2
	@Strain 0.200 %, Temperature 23.0 °C	@Strain 0.200 %, Temperature 73.4 °F	
	21.792 MPa	3160.7 psi	50%RH; ISO 11403-1 -2
	@Strain 0.500 %,	@Strain 0.500 %,	

Mechanical Properties	Temperature 150 °C Metric	Temperature 302 °F English	Comments
	32.13 MPa @Strain 0.500 %, Temperature 23.0 °C	4660 psi @Strain 0.500 %, Temperature 73.4 °F	50%RH; ISO 11403-1 -2
	35.04 MPa @Strain 0.900 %, Temperature 150 °C	5082 psi @Strain 0.900 %, Temperature 302 °F	DAM; ISO 11403-1 -2
	45.024 MPa @Strain 1.30 %, Temperature 150 °C	6530.2 psi @Strain 1.30 %, Temperature 302 °F	50%RH; ISO 11403-1 -2
	45.7 MPa @Strain 0.400 %, Temperature 0.000 °C	6630 psi @Strain 0.400 %, Temperature 32.0 °F	DAM; ISO 11403-1 -2
	45.82 MPa @Strain 0.400 %, Temperature -40.0 °C	6646 psi @Strain 0.400 %, Temperature -40.0 °F	DAM; ISO 11403-1 -2
	49.8 MPa @Strain 0.500 %, Temperature 23.0 °C	7220 psi @Strain 0.500 %, Temperature 73.4 °F	DAM; ISO 11403-1 -2
	50.11 MPa @Strain 1.50 %, Temperature 150 °C	7268 psi @Strain 1.50 %, Temperature 302 °F	DAM; ISO 11403-1 -2
	52.73 MPa @Strain 0.600 %, Temperature 0.000 °C	7648 psi @Strain 0.600 %, Temperature 32.0 °F	50%RH; ISO 11403-1 -2
	57.312 MPa @Strain 1.90 %, Temperature 150 °C	8312.4 psi @Strain 1.90 %, Temperature 302 °F	50%RH; ISO 11403-1 -2
	61.4 MPa @Strain 2.10 %, Temperature 150 °C	8910 psi @Strain 2.10 %, Temperature 302 °F	DAM; ISO 11403-1 -2
	65.7 MPa @Strain 0.600 %, Temperature -40.0 °C	9530 psi @Strain 0.600 %, Temperature -40.0 °F	50%RH; ISO 11403-1 -2
	65.952 MPa @Strain 2.50 %, Temperature 150 °C	9565.5 psi @Strain 2.50 %, Temperature 302 °F	50%RH; ISO 11403-1 -2
	71.19 MPa	10330 psi	

Mechanical Properties	Metric	English	Comments
	@Strain 1.30 %, Temperature 23.0 °C	@Strain 1.30 %, Temperature 73.4 °F	50%RH; ISO 11403-1 -2
	75.89 MPa	11010 psi	DAM; ISO 11403-1 -2
	@Strain 0.800 %, Temperature 23.0 °C	@Strain 0.800 %, Temperature 73.4 °F	
	76.75 MPa	11130 psi	DAM; ISO 11403-1 -2
	@Strain 0.700 %, Temperature 0.000 °C	@Strain 0.700 %, Temperature 32.0 °F	
	77.0 MPa	11200 psi	DAM; ISO 11403-1 -2
	@Strain 0.700 %, Temperature -40.0 °C	@Strain 0.700 %, Temperature -40.0 °F	
	77.82 MPa	11290 psi	50%RH; ISO 11403-1 -2
	@Strain 0.900 %, Temperature 0.000 °C	@Strain 0.900 %, Temperature 32.0 °F	
	81.76 MPa	11860 psi	DAM; ISO 11403-1 -2
	@Strain 4.50 %, Temperature 150 °C	@Strain 4.50 %, Temperature 302 °F	
	92.34 MPa	13390 psi	50%RH; ISO 11403-1 -2
	@Strain 1.90 %, Temperature 23.0 °C	@Strain 1.90 %, Temperature 73.4 °F	
	98.36 MPa	14270 psi	50%RH; ISO 11403-1 -2
	@Strain 1.20 %, Temperature 0.000 °C	@Strain 1.20 %, Temperature 32.0 °F	
	106.06 MPa	15383 psi	DAM; ISO 11403-1 -2
	@Strain 1.00 %, Temperature 0.000 °C	@Strain 1.00 %, Temperature 32.0 °F	
	106.62 MPa	15464 psi	DAM; ISO 11403-1 -2
	@Strain 1.00 %, Temperature -40.0 °C	@Strain 1.00 %, Temperature -40.0 °F	
	109.17 MPa	15834 psi	50%RH; ISO 11403-1 -2
	@Strain 2.50 %, Temperature 23.0 °C	@Strain 2.50 %, Temperature 73.4 °F	
	121.5 MPa	17620 psi	DAM; ISO 11403-1 -2
	@Strain 1.40 %, Temperature 23.0 °C	@Strain 1.40 %, Temperature 73.4 °F	
	123.11 MPa	17856 psi	50%RH; ISO 11403-1 -2
	@Strain 1.60 %, Temperature 0.000 °C	@Strain 1.60 %, Temperature 32.0 °F	

Mechanical Properties	Metric	English	Comments
	131.98 MPa	19142 psi	
	@Strain 1.30 %, Temperature 0.000 °C	@Strain 1.30 %, Temperature 32.0 °F	DAM; ISO 11403-1 -2
	136.23 MPa	19759 psi	
	@Strain 1.30 %, Temperature -40.0 °C	@Strain 1.30 %, Temperature -40.0 °F	DAM; ISO 11403-1 -2
	147.5 MPa	21390 psi	
	@Strain 1.50 %, Temperature -40.0 °C	@Strain 1.50 %, Temperature -40.0 °F	50%RH; ISO 11403-1 -2
	176.3 MPa	25570 psi	
	@Strain 1.90 %, Temperature -40.0 °C	@Strain 1.90 %, Temperature -40.0 °F	50%RH; ISO 11403-1 -2
	179.66 MPa	26058 psi	
	@Strain 3.40 %, Temperature 0.000 °C	@Strain 3.40 %, Temperature 32.0 °F	50%RH; ISO 11403-1 -2
	199.09 MPa	28876 psi	
	@Strain 3.20 %, Temperature 23.0 °C	@Strain 3.20 %, Temperature 73.4 °F	DAM; ISO 11403-1 -2
	212.5 MPa	30820 psi	
	@Strain 2.50 %, Temperature -40.0 °C	@Strain 2.50 %, Temperature -40.0 °F	50%RH; ISO 11403-1 -2
	224.79 MPa	32603 psi	
	@Strain 3.00 %, Temperature 0.000 °C	@Strain 3.00 %, Temperature 32.0 °F	DAM; ISO 11403-1 -2
	251.95 MPa	36542 psi	
	@Strain 2.90 %, Temperature -40.0 °C	@Strain 2.90 %, Temperature -40.0 °F	DAM; ISO 11403-1 -2
Elongation at Break	3.5 %	3.5 %	DAM; ISO 527-1/-2
	5.0 %	5.0 %	50%RH; ISO 527-1/-2
Tensile Modulus	8.00 GPa	1160 ksi	50%RH; ISO 527-1/-2
	10.5 GPa	1520 ksi	DAM; ISO 527-1/-2
Flexural Strength	200 MPa	29000 psi	50%RH; ISO 178
	290 MPa	42100 psi	DAM; ISO 178
Flexural Modulus	6.21 GPa	901 ksi	50%RH; ISO 178
	9.30 GPa	1350 ksi	DAM; ISO 178

Mechanical Properties	Metric	English	Comments
	0.099085 MPa	14.371 psi	
Shear Strength	@Shear Rate 500 1/s, Temperature 295 °C	@Shear Rate 500 1/s, Temperature 563 °F	ISO 11403-1 -2
Secant Modulus	2.34 GPa	339 ksi	50%RH; ISO 11403-1 -2
	@Strain 3.70 %, Temperature 100 °C	@Strain 3.70 %, Temperature 212 °F	
	2.67 GPa	387 ksi	DAM; ISO 11403-1 -2
	@Strain 3.70 %, Temperature 100 °C	@Strain 3.70 %, Temperature 212 °F	
	2.74 GPa	398 ksi	50%RH; ISO 11403-1 -2
	@Strain 3.40 %, Temperature 80.0 °C	@Strain 3.40 %, Temperature 176 °F	
	2.80 GPa	406 ksi	50%RH; ISO 11403-1 -2
	@Strain 2.90 %, Temperature 100 °C	@Strain 2.90 %, Temperature 212 °F	
	2.91 GPa	422 ksi	DAM; ISO 11403-1 -2
	@Strain 3.80 %, Temperature 80.0 °C	@Strain 3.80 %, Temperature 176 °F	
	3.24 GPa	470 ksi	50%RH; ISO 11403-1 -2
	@Strain 2.60 %, Temperature 80.0 °C	@Strain 2.60 %, Temperature 176 °F	
	3.2868 GPa	476.72 ksi	DAM; ISO 11403-1 -2
	@Strain 2.50 %, Temperature 100 °C	@Strain 2.50 %, Temperature 212 °F	
	3.30 GPa	479 ksi	50%RH; ISO 11403-1 -2
	@Strain 2.10 %, Temperature 100 °C	@Strain 2.10 %, Temperature 212 °F	
	3.42 GPa	495 ksi	50%RH; ISO 11403-1 -2
	@Strain 3.70 %, Temperature 23.0 °C	@Strain 3.70 %, Temperature 73.4 °F	
	3.72 GPa	539 ksi	DAM; ISO 11403-1 -2
	@Strain 2.40 %, Temperature 80.0 °C	@Strain 2.40 %, Temperature 176 °F	
	3.77 GPa	546 ksi	50%RH; ISO 11403-1 -2
	@Strain 1.80 %, Temperature 80.0 °C	@Strain 1.80 %, Temperature 176 °F	

## **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**