

DuPont Performance Polymers Zytel® 70G43L NC010 Nylon 66 (Unverified Data**)

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, 40% Glass Fiber Filled

Material Notes:

43% Glass Reinforced Polyamide 66 Zytel 70G43L NC010 is a 43% glass fiber reinforced 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-70G43L-NC010-Nylon-66-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Density	1.29 g/cc	0.0466 lb/in ³	
	1.49 g/cc	0.0538 lb/in ³	DAM; ISO 1183
Water Absorption	4.7 %	4.7 %	DAM; Sim. to ISO 62
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Moisture Absorption	1.50 %	1.50 %	DAM; Sim. to ISO 62
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Water Absorption at Saturation	0.90 %	0.90 %	DAM; Immersion 24h; ASTM D570
Viscosity	56420 cP	56420 cP	ISO 11403-1 -2
	@Shear Rate 5000 1/s, Temperature 305 °C	@Shear Rate 5000 1/s, Temperature 581 °F	
	69100 cP	69100 cP	ISO 11403-1 -2
	@Shear Rate 5000 1/s, Temperature 295 °C	@Shear Rate 5000 1/s, Temperature 563 °F	
	86190 cP	86190 cP	ISO 11403-1 -2
	@Shear Rate 5000 1/s, Temperature 285 °C	@Shear Rate 5000 1/s, Temperature 545 °F	
164800 cP	164800 cP	ISO 11403-1 -2	
@Shear Rate 500 1/s, Temperature 305 °C	@Shear Rate 500 1/s, Temperature 581 °F		
204400 cP	204400 cP	ISO 11403-1 -2	
@Shear Rate 500 1/s, Temperature 295 °C	@Shear Rate 500 1/s, Temperature 563 °F		
257400 cP	257400 cP	ISO 11403-1 -2	
@Shear Rate 500 1/s, Temperature 285 °C	@Shear Rate 500 1/s, Temperature 545 °F		

Physical Properties	130 cm ² /g Metric	130 cm ² /g English	DAM; ISO 307 1157 1628 Comments
Linear Mold Shrinkage, Flow	0.0030 cm/cm	0.0030 in/in	DAM; ISO 294-4 2577
Linear Mold Shrinkage, Transverse	0.010 cm/cm	0.010 in/in	DAM; ISO 294-4 2577

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell M	90	90	50%RH; ISO 2039-2
	105	105	DAM; ISO 2039-2
Hardness, Rockwell R	118	118	50%RH; ISO 2039-2
	125	125	DAM; ISO 2039-2
Tensile Strength at Break	160 MPa	23200 psi	50%RH; ISO 527-1/-2
	225 MPa	32600 psi	DAM; ISO 527-1/-2
Tensile Stress	10.33 MPa @Strain 0.190 %, Temperature 150 °C	1498 psi @Strain 0.190 %, Temperature 302 °F	50%RH; ISO 11403-1 -2
	16.73 MPa @Strain 0.260 %, Temperature 90.0 °C	2426 psi @Strain 0.260 %, Temperature 194 °F	50%RH; ISO 11403-1 -2
	18.05 MPa @Strain 0.310 %, Temperature 150 °C	2618 psi @Strain 0.310 %, Temperature 302 °F	DAM; ISO 11403-1 -2
	23.95 MPa @Strain 0.290 %, Temperature 40.0 °C	3474 psi @Strain 0.290 %, Temperature 104 °F	50%RH; ISO 11403-1 -2
	25.74 MPa @Strain 0.470 %, Temperature 180 °C	3733 psi @Strain 0.470 %, Temperature 356 °F	DAM; ISO 11403-1 -2
	31.39 MPa @Strain 0.710 %, Temperature 150 °C	4553 psi @Strain 0.710 %, Temperature 302 °F	50%RH; ISO 11403-1 -2
	41.26 MPa @Strain 0.610 %, Temperature 90.0 °C	5984 psi @Strain 0.610 %, Temperature 194 °F	DAM; ISO 11403-1 -2
	45.36 MPa @Strain 1.07 %, Temperature 180 °C	6579 psi @Strain 1.07 %, Temperature 356 °F	DAM; ISO 11403-1 -2

Mechanical Properties	Metric ¹	English ¹	Comments
	@Strain 0.360 %, Temperature 0.000 °C	@Strain 0.360 %, Temperature 32.0 °F	50%RH; ISO 11403-1 -2
	47.64 MPa	6910 psi	
	@Strain 1.06 %, Temperature 150 °C	@Strain 1.06 %, Temperature 302 °F	DAM; ISO 11403-1 -2
	48.52 MPa	7037 psi	
	@Strain 1.43 %, Temperature 150 °C	@Strain 1.43 %, Temperature 302 °F	50%RH; ISO 11403-1 -2
	49.92 MPa	7240 psi	
	@Strain 0.930 %, Temperature 90.0 °C	@Strain 0.930 %, Temperature 194 °F	50%RH; ISO 11403-1 -2
	51.87 MPa	7523 psi	
	@Strain 0.610 %, Temperature 23.0 °C	@Strain 0.610 %, Temperature 73.4 °F	50%RH; ISO 11403-1 -2
	57.13 MPa	8286 psi	
	@Strain 1.69 %, Temperature 180 °C	@Strain 1.69 %, Temperature 356 °F	DAM; ISO 11403-1 -2
	59.91 MPa	8689 psi	
	@Strain 2.20 %, Temperature 150 °C	@Strain 2.20 %, Temperature 302 °F	50%RH; ISO 11403-1 -2
	60.83 MPa	8823 psi	
	@Strain 0.570 %, Temperature 40.0 °C	@Strain 0.570 %, Temperature 104 °F	DAM; ISO 11403-1 -2
	61.87 MPa	8974 psi	
	@Strain 0.880 %, Temperature 40.0 °C	@Strain 0.880 %, Temperature 104 °F	50%RH; ISO 11403-1 -2
	64.48 MPa	9352 psi	
	@Strain 0.400 %, Temperature -40.0 °C	@Strain 0.400 %, Temperature -40.0 °F	50%RH; ISO 11403-1 -2
	64.59 MPa	9368 psi	
	@Strain 2.30 %, Temperature 180 °C	@Strain 2.30 %, Temperature 356 °F	DAM; ISO 11403-1 -2
	64.59 MPa	9368 psi	
	@Strain 1.82 %, Temperature 150 °C	@Strain 1.82 %, Temperature 302 °F	DAM; ISO 11403-1 -2
	68.6 MPa	9950 psi	
			50%RH; ISO 11403-1 -2

Mechanical Properties	@Strain 1.56 %, Metric Temperature 90.0 °C	@Strain 1.56 %, English Temperature 194 °F	Comments
	69.27 MPa	10050 psi	
	@Strain 1.23 %, Temperature 90.0 °C	@Strain 1.23 %, Temperature 194 °F	DAM; ISO 11403-1 -2
	77.02 MPa	11170 psi	
	@Strain 2.67 %, Temperature 150 °C	@Strain 2.67 %, Temperature 302 °F	DAM; ISO 11403-1 -2
	78.19 MPa	11340 psi	
	@Strain 5.31 %, Temperature 150 °C	@Strain 5.31 %, Temperature 302 °F	50%RH; ISO 11403-1 -2
	81.6 MPa	11800 psi	
	@Strain 1.11 %, Temperature 23.0 °C	@Strain 1.11 %, Temperature 73.4 °F	50%RH; ISO 11403-1 -2
	82.52 MPa	11970 psi	
	@Strain 2.24 %, Temperature 90.0 °C	@Strain 2.24 %, Temperature 194 °F	50%RH; ISO 11403-1 -2
	87.13 MPa	12640 psi	
	@Strain 1.49 %, Temperature 40.0 °C	@Strain 1.49 %, Temperature 104 °F	50%RH; ISO 11403-1 -2
	87.46 MPa	12690 psi	
	@Strain 0.700 %, Temperature 23.0 °C	@Strain 0.700 %, Temperature 73.4 °F	DAM; ISO 11403-1 -2
	90.23 MPa	13090 psi	
	@Strain 1.92 %, Temperature 90.0 °C	@Strain 1.92 %, Temperature 194 °F	DAM; ISO 11403-1 -2
	94.64 MPa	13730 psi	
	@Strain 5.84 %, Temperature 150 °C	@Strain 5.84 %, Temperature 302 °F	DAM; ISO 11403-1 -2
	97.13 MPa	14090 psi	
	@Strain 1.01 %, Temperature 40.0 °C	@Strain 1.01 %, Temperature 104 °F	DAM; ISO 11403-1 -2
	103.93 MPa	15074 psi	
	@Strain 0.930 %, Temperature 0.000 °C	@Strain 0.930 %, Temperature 32.0 °F	50%RH; ISO 11403-1 -2
	104.43 MPa	15146 psi	
	@Strain 1.62 %, Temperature 23.0 °C	@Strain 1.62 %, Temperature 73.4 °F	50%RH; ISO 11403-1 -2

Mechanical Properties	105.23 MPa Metric	15262 psi English	Comments 50%RH; ISO 11403-1 -2
	@Strain 2.08 %, Temperature 40.0 °C	@Strain 2.08 %, Temperature 104 °F	
	106.17 MPa	15399 psi	DAM; ISO 11403-1 -2
	@Strain 2.66 %, Temperature 90.0 °C	@Strain 2.66 %, Temperature 194 °F	
	123.84 MPa	17962 psi	50%RH; ISO 11403-1 -2
	@Strain 2.19 %, Temperature 23.0 °C	@Strain 2.19 %, Temperature 73.4 °F	
	124 MPa	18000 psi	DAM; ISO 11403-1 -2
	@Strain 0.910 %, Temperature 0.000 °C	@Strain 0.910 %, Temperature 32.0 °F	
	124.08 MPa	17996 psi	DAM; ISO 11403-1 -2
	@Strain 1.48 %, Temperature 40.0 °C	@Strain 1.48 %, Temperature 104 °F	
	130.71 MPa	18958 psi	DAM; ISO 11403-1 -2
	@Strain 1.12 %, Temperature 23.0 °C	@Strain 1.12 %, Temperature 73.4 °F	
	132.75 MPa	19254 psi	50%RH; ISO 11403-1 -2
	@Strain 1.01 %, Temperature -20.0 °C	@Strain 1.01 %, Temperature -4.00 °F	
	134.98 MPa	19577 psi	50%RH; ISO 11403-1 -2
	@Strain 1.36 %, Temperature 0.000 °C	@Strain 1.36 %, Temperature 32.0 °F	
	145.96 MPa	21170 psi	DAM; ISO 11403-1 -2
	@Strain 2.01 %, Temperature 40.0 °C	@Strain 2.01 %, Temperature 104 °F	
	146 MPa	21200 psi	DAM; ISO 11403-1 -2
	@Strain 1.06 %, Temperature -20.0 °C	@Strain 1.06 %, Temperature -4.00 °F	
	148.08 MPa	21477 psi	50%RH; ISO 11403-1 -2
	@Strain 1.00 %, Temperature -40.0 °C	@Strain 1.00 %, Temperature -40.0 °F	
	161.41 MPa	23411 psi	50%RH; ISO 11403-1 -2
	@Strain 1.86 %, Temperature 0.000 °C	@Strain 1.86 %, Temperature 32.0 °F	
	161.78 MPa	23464 psi	DAM; ISO 11403-1 -2
	@Strain 1.51 %,	@Strain 1.51 %,	

Mechanical Properties	Temperature 23.0 °C Metric 166.1 MPa	Temperature 73.4 °F English 24380 psi	Comments
	@Strain 1.39 %, Temperature -20.0 °C	@Strain 1.39 %, Temperature -4.00 °F	50%RH; ISO 11403-1 -2

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