

DuPont Performance Polymers Minlon® 10B40 NC010 Nylon 66 (Unverified Data**)

Category : Polymer , Thermoplastic , Nylon , Nylon 66 , Nylon 66, 40% Mineral Filled

Material Notes:

40% Mineral Reinforced Polyamide 66Minlon 10B40 NC010 is a 40% mineral 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-Minlon-10B40-NC010-Nylon-66-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Density	1.51 g/cc	0.0546 lb/in ³	DAM; ISO 1183
Water Absorption	0.45 % @Thickness 2.00 mm	0.45 % @Thickness 0.0787 in	DAM; Sim. to ISO 62
Moisture Absorption	0.180 % @Thickness 2.00 mm	0.180 % @Thickness 0.0787 in	DAM; Sim. to ISO 62
Linear Mold Shrinkage, Flow	0.0050 cm/cm	0.0050 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	58.0 MPa	8410 psi	50%RH; ISO 527-1/-2
	92.0 MPa	13300 psi	DAM; ISO 527-1/-2
Tensile Stress	5.36 MPa @Strain 0.400 %, Temperature 150 °C	777 psi @Strain 0.400 %, Temperature 302 °F	50%RH; ISO 11403-1 -2
	8.33 MPa @Strain 0.500 %, Temperature 150 °C	1210 psi @Strain 0.500 %, Temperature 302 °F	DAM; ISO 11403-1 -2
	9.50 MPa @Strain 0.800 %, Temperature 150 °C	1380 psi @Strain 0.800 %, Temperature 302 °F	50%RH; ISO 11403-1 -2
	10.36 MPa @Strain 0.100 %, Temperature -40.0 °C	1503 psi @Strain 0.100 %, Temperature -40.0 °F	DAM; ISO 11403-1 -2
	12.5 MPa @Strain 0.800 %,	1810 psi @Strain 0.800 %,	DAM; ISO 11403-1 -2

Mechanical Properties	Temperature 150 °C Metric	Temperature 302 °F English	Comments
	18.42 MPa @Strain 0.200 %, Temperature 23.0 °C	2672 psi @Strain 0.200 %, Temperature 73.4 °F	DAM; ISO 11403-1 -2
	18.92 MPa @Strain 1.50 %, Temperature 150 °C	2744 psi @Strain 1.50 %, Temperature 302 °F	DAM; ISO 11403-1 -2
	18.98 MPa @Strain 2.70 %, Temperature 150 °C	2753 psi @Strain 2.70 %, Temperature 302 °F	50%RH; ISO 11403-1 -2
	19.85 MPa @Strain 0.200 %, Temperature 0.000 °C	2879 psi @Strain 0.200 %, Temperature 32.0 °F	50%RH; ISO 11403-1 -2
	20.13 MPa @Strain 0.200 %, Temperature 0.000 °C	2920 psi @Strain 0.200 %, Temperature 32.0 °F	DAM; ISO 11403-1 -2
	22.57 MPa @Strain 4.70 %, Temperature 150 °C	3274 psi @Strain 4.70 %, Temperature 302 °F	50%RH; ISO 11403-1 -2
	23.65 MPa @Strain 2.40 %, Temperature 150 °C	3430 psi @Strain 2.40 %, Temperature 302 °F	DAM; ISO 11403-1 -2
	25.37 MPa @Strain 0.500 %, Temperature 23.0 °C	3680 psi @Strain 0.500 %, Temperature 73.4 °F	50%RH; ISO 11403-1 -2
	35.71 MPa @Strain 0.800 %, Temperature 23.0 °C	5179 psi @Strain 0.800 %, Temperature 73.4 °F	50%RH; ISO 11403-1 -2
	42.75 MPa @Strain 1.10 %, Temperature 23.0 °C	6200 psi @Strain 1.10 %, Temperature 73.4 °F	50%RH; ISO 11403-1 -2
	47.23 MPa @Strain 1.40 %, Temperature 23.0 °C	6850 psi @Strain 1.40 %, Temperature 73.4 °F	50%RH; ISO 11403-1 -2
	48.0 MPa @Strain 0.500 %, Temperature 0.000 °C	6960 psi @Strain 0.500 %, Temperature 32.0 °F	DAM; ISO 11403-1 -2
	53.59 MPa	7773 psi	

Mechanical Properties	Metric	English	Comments
	@Strain 0.600 %, Temperature 0.000 °C	@Strain 0.600 %, Temperature 32.0 °F	50%RH; ISO 11403-1 -2
	53.92 MPa	7820 psi	50%RH; ISO 11403-1 -2
	@Strain 0.500 %, Temperature -40.0 °C	@Strain 0.500 %, Temperature -40.0 °F	
	57.8 MPa	8380 psi	DAM; ISO 11403-1 -2
	@Strain 0.700 %, Temperature 23.0 °C	@Strain 0.700 %, Temperature 73.4 °F	
	58.76 MPa	8522 psi	DAM; ISO 11403-1 -2
	@Strain 0.600 %, Temperature -40.0 °C	@Strain 0.600 %, Temperature -40.0 °F	
	59.55 MPa	8637 psi	50%RH; ISO 11403-1 -2
	@Strain 8.00 %, Temperature 23.0 °C	@Strain 8.00 %, Temperature 73.4 °F	
	68.01 MPa	9864 psi	DAM; ISO 11403-1 -2
	@Strain 0.800 %, Temperature 0.000 °C	@Strain 0.800 %, Temperature 32.0 °F	
	70.53 MPa	10230 psi	50%RH; ISO 11403-1 -2
	@Strain 0.900 %, Temperature 0.000 °C	@Strain 0.900 %, Temperature 32.0 °F	
	71.16 MPa	10320 psi	DAM; ISO 11403-1 -2
	@Strain 1.00 %, Temperature 23.0 °C	@Strain 1.00 %, Temperature 73.4 °F	
	80.05 MPa	11610 psi	DAM; ISO 11403-1 -2
	@Strain 1.30 %, Temperature 23.0 °C	@Strain 1.30 %, Temperature 73.4 °F	
	80.32 MPa	11650 psi	50%RH; ISO 11403-1 -2
	@Strain 1.20 %, Temperature 0.000 °C	@Strain 1.20 %, Temperature 32.0 °F	
	82.0 MPa	11900 psi	50%RH; ISO 11403-1 -2
	@Strain 0.800 %, Temperature -40.0 °C	@Strain 0.800 %, Temperature -40.0 °F	
	82.42 MPa	11950 psi	DAM; ISO 11403-1 -2
	@Strain 1.10 %, Temperature 0.000 °C	@Strain 1.10 %, Temperature 32.0 °F	
	82.82 MPa	12010 psi	DAM; ISO 11403-1 -2
	@Strain 0.900 %, Temperature -40.0 °C	@Strain 0.900 %, Temperature -40.0 °F	

Mechanical Properties	Metric, MPa	English, psi	Comments
	@Strain 1.10 %, Temperature -40.0 °C	@Strain 1.10 %, Temperature -40.0 °F	50%RH; ISO 11403-1 -2
	106.14 MPa	15394 psi	
	@Strain 1.30 %, Temperature -40.0 °C	@Strain 1.30 %, Temperature -40.0 °F	DAM; ISO 11403-1 -2
	117.55 MPa	17049 psi	
	@Strain 1.50 %, Temperature -40.0 °C	@Strain 1.50 %, Temperature -40.0 °F	50%RH; ISO 11403-1 -2
Elongation at Break	2.5 %	2.5 %	DAM; ISO 527-1/-2
	8.0 %	8.0 %	50%RH; ISO 527-1/-2
Tensile Modulus	5.40 GPa	783 ksi	50%RH; ISO 527-1/-2
	9.60 GPa	1390 ksi	DAM; ISO 527-1/-2
Flexural Modulus	4.80 GPa	696 ksi	50%RH; ISO 178
	9.00 GPa	1310 ksi	DAM; ISO 178
Secant Modulus	0.520 GPa	75.4 ksi	50%RH; ISO 11403-1 -2
	@Strain 6.00 %, Temperature 100 °C	@Strain 6.00 %, Temperature 212 °F	
	0.543 GPa	78.7 ksi	
	@Strain 6.50 %, Temperature 80.0 °C	@Strain 6.50 %, Temperature 176 °F	50%RH; ISO 11403-1 -2
	0.5968 GPa	86.56 ksi	
	@Strain 7.50 %, Temperature 80.0 °C	@Strain 7.50 %, Temperature 176 °F	DAM; ISO 11403-1 -2
	0.645 GPa	93.6 ksi	
	@Strain 6.00 %, Temperature 100 °C	@Strain 6.00 %, Temperature 212 °F	DAM; ISO 11403-1 -2
	0.855 GPa	124 ksi	
	@Strain 3.80 %, Temperature 80.0 °C	@Strain 3.80 %, Temperature 176 °F	50%RH; ISO 11403-1 -2
	1.07 GPa	155 ksi	
	@Strain 3.00 %, Temperature 100 °C	@Strain 3.00 %, Temperature 212 °F	DAM; ISO 11403-1 -2
	1.14 GPa	165 ksi	
	@Strain 2.20 %, Temperature 100 °C	@Strain 2.20 %, Temperature 212 °F	50%RH; ISO 11403-1 -2

Mechanical Properties	Metric	English	Comments
	1.43 GPa	208 ksi	
	@Strain 2.60 %, Temperature 80.0 °C	@Strain 2.60 %, Temperature 176 °F	DAM; ISO 11403-1 -2
	1.446 GPa	209.7 ksi	
	@Strain 4.00 %, Temperature 23.0 °C	@Strain 4.00 %, Temperature 73.4 °F	50%RH; ISO 11403-1 -2
	1.45 GPa	210 ksi	
	@Strain 1.80 %, Temperature 80.0 °C	@Strain 1.80 %, Temperature 176 °F	50%RH; ISO 11403-1 -2
	1.49 GPa	217 ksi	
	@Strain 1.70 %, Temperature 100 °C	@Strain 1.70 %, Temperature 212 °F	DAM; ISO 11403-1 -2
	1.50 GPa	217 ksi	
	@Strain 1.40 %, Temperature 100 °C	@Strain 1.40 %, Temperature 212 °F	50%RH; ISO 11403-1 -2
	1.82 GPa	264 ksi	
	@Strain 0.900 %, Temperature 100 °C	@Strain 0.900 %, Temperature 212 °F	50%RH; ISO 11403-1 -2
	1.92 GPa	279 ksi	
	@Strain 0.900 %, Temperature 100 °C	@Strain 0.900 %, Temperature 212 °F	DAM; ISO 11403-1 -2
	2.02 GPa	293 ksi	
	@Strain 0.900 %, Temperature 80.0 °C	@Strain 0.900 %, Temperature 176 °F	50%RH; ISO 11403-1 -2
	2.116 GPa	306.9 ksi	
	@Strain 0.500 %, Temperature 100 °C	@Strain 0.500 %, Temperature 212 °F	50%RH; ISO 11403-1 -2
	2.14 GPa	310 ksi	
	@Strain 1.40 %, Temperature 80.0 °C	@Strain 1.40 %, Temperature 176 °F	DAM; ISO 11403-1 -2
	2.226 GPa	322.9 ksi	
	@Strain 0.500 %, Temperature 100 °C	@Strain 0.500 %, Temperature 212 °F	DAM; ISO 11403-1 -2
	2.34 GPa	339 ksi	
	@Strain 0.500 %, Temperature 80.0 °C	@Strain 0.500 %, Temperature 176 °F	50%RH; ISO 11403-1 -2
	2.63 GPa	382 ksi	

Mechanical Properties	Metric @Strain 0.900 %, Temperature 80.0 °C	English @Strain 0.900 %, Temperature 176 °F	Comments DAM: ISO 11403-1 -2
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Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

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