

DuPont Performance Polymers Zytel® 158 NC010 Nylon 612 (Unverified Data**)

Category : Polymer , Thermoplastic , Nylon , Nylon 612

Material Notes:

Unreinforced Polyamide 612Zytel 158 NC010 is an intermediate viscosity PA 612 resin. Information provided by DuPont Performance Polymers

Order this product through the following link:

http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Zytel-158-NC010-Nylon-612-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Density	0.900 g/cc	0.0325 lb/in ³	
	1.06 g/cc	0.0383 lb/in ³	DAM; ISO 1183
Water Absorption	3.0 %	3.0 %	
	@Thickness 2.00 mm	@Thickness 0.0787 in	DAM; Sim. to ISO 62
Moisture Absorption	1.30 %	1.30 %	
	@Thickness 2.00 mm	@Thickness 0.0787 in	DAM; Sim. to ISO 62
Viscosity	54050 cP	54050 cP	
	@Shear Rate 5000 1/s, Temperature 290 °C	@Shear Rate 5000 1/s, Temperature 554 °F	ISO 11403-1 -2
	74410 cP	74410 cP	
	@Shear Rate 5000 1/s, Temperature 250 °C	@Shear Rate 5000 1/s, Temperature 482 °F	ISO 11403-1 -2
	88620 cP	88620 cP	
	@Shear Rate 5000 1/s, Temperature 230 °C	@Shear Rate 5000 1/s, Temperature 446 °F	ISO 11403-1 -2
	116500 cP	116500 cP	
	@Shear Rate 500 1/s, Temperature 290 °C	@Shear Rate 500 1/s, Temperature 554 °F	ISO 11403-1 -2
	140700 cP	140700 cP	
	@Shear Rate 10.0 1/s, Temperature 290 °C	@Shear Rate 10.0 1/s, Temperature 554 °F	ISO 11403-1 -2
	197900 cP	197900 cP	
	@Shear Rate 500 1/s, Temperature 250 °C	@Shear Rate 500 1/s, Temperature 482 °F	ISO 11403-1 -2
	262900 cP	262900 cP	
	@Shear Rate 500 1/s,	@Shear Rate 500 1/s,	ISO 11403-1 -2

Physical Properties	Temperature 230 °C Metric	Temperature 446 °F English	Comments
	274600 cP	274600 cP	
	@Shear Rate 10.0 1/s, Temperature 250 °C	@Shear Rate 10.0 1/s, Temperature 482 °F	ISO 11403-1 -2
	408300 cP	408300 cP	
	@Shear Rate 10.0 1/s, Temperature 230 °C	@Shear Rate 10.0 1/s, Temperature 446 °F	ISO 11403-1 -2
Viscosity Test	120 cm³/g	120 cm³/g	DAM; ISO 307 1157 1628
Linear Mold Shrinkage, Flow	0.015 cm/cm	0.015 in/in	DAM; ISO 294-4 2577
	0.011 cm/cm	0.011 in/in	
	@Thickness 3.20 mm	@Thickness 0.126 in	DAM
Linear Mold Shrinkage, Transverse	0.015 cm/cm	0.015 in/in	DAM; ISO 294-4 2577
	0.011 cm/cm	0.011 in/in	
	@Thickness 3.20 mm	@Thickness 0.126 in	DAM; ASTM D149

Mechanical Properties	Metric	English	Comments
Hardness, Rockwell R	108	108	50%RH; ISO 2039-2
	114	114	DAM; ISO 2039-2
Tensile Stress	9.30 MPa	1350 psi	
	@Strain 2.55 %, Temperature 90.0 °C	@Strain 2.55 %, Temperature 194 °F	DAM; ISO 11403-1 -2
	10.0 MPa	1450 psi	
	@Strain 2.57 %, Temperature 90.0 °C	@Strain 2.57 %, Temperature 194 °F	50%RH; ISO 11403-1 -2
	11.2 MPa	1620 psi	
	@Strain 0.380 %, Temperature 23.0 °C	@Strain 0.380 %, Temperature 73.4 °F	DAM; ISO 11403-1 -2
	14.0 MPa	2030 psi	
	@Strain 0.450 %, Temperature 0.000 °C	@Strain 0.450 %, Temperature 32.0 °F	DAM; ISO 11403-1 -2
	16.0 MPa	2320 psi	
	@Strain 2.30 %, Temperature 40.0 °C	@Strain 2.30 %, Temperature 104 °F	50%RH; ISO 11403-1 -2
	20.6 MPa	2990 psi	
	@Strain 10.3 %,	@Strain 10.3 %,	50%RH; ISO 11403-1 -2

Mechanical Properties	Temperature 90.0 °C Metric	Temperature 194 °F English	Comments
	22.3 MPa	3230 psi	
	@Strain 10.2 %, Temperature 90.0 °C	@Strain 10.2 %, Temperature 194 °F	DAM; ISO 11403-1 -2
	23.2 MPa	3360 psi	
	@Strain 18.0 %, Temperature 90.0 °C	@Strain 18.0 %, Temperature 194 °F	50%RH; ISO 11403-1 -2
	24.3 MPa	3520 psi	
	@Strain 25.7 %, Temperature 90.0 °C	@Strain 25.7 %, Temperature 194 °F	50%RH; ISO 11403-1 -2
	24.8 MPa	3600 psi	
	@Strain 17.9 %, Temperature 90.0 °C	@Strain 17.9 %, Temperature 194 °F	DAM; ISO 11403-1 -2
	25.9 MPa	3760 psi	
	@Strain 25.5 %, Temperature 90.0 °C	@Strain 25.5 %, Temperature 194 °F	DAM; ISO 11403-1 -2
	26.8 MPa	3890 psi	
	@Strain 1.85 %, Temperature 23.0 °C	@Strain 1.85 %, Temperature 73.4 °F	50%RH; ISO 11403-1 -2
	30.0 MPa	4350 psi	
	@Strain 1.15 %, Temperature -20.0 °C	@Strain 1.15 %, Temperature -4.00 °F	50%RH; ISO 11403-1 -2
	32.0 MPa	4640 psi	
	@Strain 5.60 %, Temperature 40.0 °C	@Strain 5.60 %, Temperature 104 °F	DAM; ISO 11403-1 -2
	34.6 MPa	5020 psi	
	@Strain 1.45 %, Temperature 0.000 °C	@Strain 1.45 %, Temperature 32.0 °F	50%RH; ISO 11403-1 -2
	35.9 MPa	5210 psi	
	@Strain 9.20 %, Temperature 40.0 °C	@Strain 9.20 %, Temperature 104 °F	50%RH; ISO 11403-1 -2
	36.9 MPa	5350 psi	
	@Strain 1.52 %, Temperature 23.0 °C	@Strain 1.52 %, Temperature 73.4 °F	DAM; ISO 11403-1 -2
	39.1 MPa	5670 psi	
	@Strain 16.1 %, Temperature 40.0 °C	@Strain 16.1 %, Temperature 104 °F	50%RH; ISO 11403-1 -2
	40.1 MPa	5820 psi	

Mechanical Properties	Metric	English	Comments
	@Strain 23.0 %, Temperature 40.0 °C	@Strain 23.0 %, Temperature 104 °F	553.5N/150 11403-1 -2
	42.8 MPa	6210 psi	
	@Strain 13.4 %, Temperature 40.0 °C	@Strain 13.4 %, Temperature 104 °F	DAM; ISO 11403-1 -2
	44.9 MPa	6510 psi	
	@Strain 21.2 %, Temperature 40.0 °C	@Strain 21.2 %, Temperature 104 °F	DAM; ISO 11403-1 -2
	44.9 MPa	6510 psi	
	@Strain 7.40 %, Temperature 23.0 °C	@Strain 7.40 %, Temperature 73.4 °F	50%RH; ISO 11403-1 -2
	46.0 MPa	6670 psi	
	@Strain 29.0 %, Temperature 40.0 °C	@Strain 29.0 %, Temperature 104 °F	DAM; ISO 11403-1 -2
	46.7 MPa	6770 psi	
	@Strain 1.80 %, Temperature 0.000 °C	@Strain 1.80 %, Temperature 32.0 °F	DAM; ISO 11403-1 -2
	48.0 MPa	6960 psi	
	@Strain 13.0 %, Temperature 23.0 °C	@Strain 13.0 %, Temperature 73.4 °F	50%RH; ISO 11403-1 -2
	49.5 MPa	7180 psi	
	@Strain 18.5 %, Temperature 23.0 °C	@Strain 18.5 %, Temperature 73.4 °F	50%RH; ISO 11403-1 -2
	51.8 MPa	7510 psi	
	@Strain 2.66 %, Temperature 23.0 °C	@Strain 2.66 %, Temperature 73.4 °F	DAM; ISO 11403-1 -2
	56.8 MPa	8240 psi	
	@Strain 3.80 %, Temperature 23.0 °C	@Strain 3.80 %, Temperature 73.4 °F	DAM; ISO 11403-1 -2
	63.1 MPa	9150 psi	
	@Strain 5.80 %, Temperature 0.000 °C	@Strain 5.80 %, Temperature 32.0 °F	50%RH; ISO 11403-1 -2
	65.3 MPa	9470 psi	
	@Strain 10.2 %, Temperature 0.000 °C	@Strain 10.2 %, Temperature 32.0 °F	50%RH; ISO 11403-1 -2
	66.0 MPa	9570 psi	
	@Strain 14.5 %, Temperature 0.000 °C	@Strain 14.5 %, Temperature 32.0 °F	50%RH; ISO 11403-1 -2

Mechanical Properties	Metric 66.0 MPa	English 9590 psi	Comments
	@Strain 3.15 %, Temperature 0.000 °C	@Strain 3.15 %, Temperature 32.0 °F	DAM; ISO 11403-1 -2
	68.0 MPa	9860 psi	
	@Strain 4.60 %, Temperature -20.0 °C	@Strain 4.60 %, Temperature -4.00 °F	50%RH; ISO 11403-1 -2
	73.1 MPa	10600 psi	
	@Strain 4.50 %, Temperature 0.000 °C	@Strain 4.50 %, Temperature 32.0 °F	DAM; ISO 11403-1 -2
	73.4 MPa	10600 psi	
	@Strain 8.05 %, Temperature -20.0 °C	@Strain 8.05 %, Temperature -4.00 °F	50%RH; ISO 11403-1 -2
	74.0 MPa	10700 psi	
	@Strain 11.5 %, Temperature -20.0 °C	@Strain 11.5 %, Temperature -4.00 °F	50%RH; ISO 11403-1 -2
Tensile Strength, Yield	52.0 MPa	7540 psi	50%RH; ISO 527-1/-2
	62.0 MPa	8990 psi	DAM; ISO 527-1/-2
Elongation at Break	35 %	35 %	DAM; Nominal; ISO 527-1/-2
	>= 50 %	>= 50 %	50%RH; Nominal; ISO 527-1/-2
Elongation at Yield	4.3 %	4.3 %	DAM; ISO 527-1/-2
	4.3 %	4.3 %	DAM; ISO 527-3
	19 %	19 %	50%RH; ISO 527-1/-2
Tensile Modulus	1.50 GPa	218 ksi	50%RH; ISO 527-1/-2
	2.40 GPa	348 ksi	DAM; ISO 527-1/-2
	1.30 GPa	189 ksi	
	@Temperature 50.0 °C	@Temperature 122 °F	DAM; Dynamic; ISO 11403-1 -2
	3.90 GPa	566 ksi	
	@Temperature -100 °C	@Temperature -148 °F	DAM; Dynamic; ISO 11403-1 -2
Shear Strength	0.001407 MPa	0.2041 psi	
	@Shear Rate 10.0 1/s, Temperature 290 °C	@Shear Rate 10.0 1/s, Temperature 554 °F	ISO 11403-1 -2

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