

DuPont Performance Polymers Zytel® ST7301 NC010 Nylon 6 (Unverified Data**)

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6, Impact Grade

Material Notes:

Super Toughened Polyamide 6 Zytel ST7301 NC010 is a Super Tough heat stabilized lubricated polyamide 6 resin for injection molding and extrusion. It offers outstanding impact resistance over a wide temperature and humidity range and high productivity. Information provided by DuPont Performance Polymers

Order this product through the following link:

http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Zytel-ST7301-NC010-Nylon-6-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Density	1.06 g/cc	0.0383 lb/in ³	DAM; ISO 1183
Viscosity Test	150 cm ³ /g	150 cm ³ /g	DAM; ISO 307 1157 1628
Linear Mold Shrinkage, Flow	0.0010 cm/cm	0.0010 in/in	DAM; 48h at 80°C; ISO 294-4
	0.010 cm/cm	0.010 in/in	DAM; ISO 294-4 2577
Linear Mold Shrinkage, Transverse	0.0010 cm/cm	0.0010 in/in	DAM; 48h at 80°C; ISO 294-4
	0.010 cm/cm	0.010 in/in	DAM; ISO 294-4 2577

Mechanical Properties	Metric	English	Comments
Hardness, H358/30	95.0 MPa	13800 psi	DAM; DS; ISO 2039-1
Tensile Stress	5.35 MPa	776 psi	DAM; ISO 11403-1 -2
	@Strain 0.500 %, Temperature 40.0 °C	@Strain 0.500 %, Temperature 104 °F	
	8.81 MPa	1280 psi	DAM; ISO 11403-1 -2
	@Strain 0.500 %, Temperature 23.0 °C	@Strain 0.500 %, Temperature 73.4 °F	
	10.6 MPa	1540 psi	DAM; ISO 11403-1 -2
	@Strain 0.560 %, Temperature 0.000 °C	@Strain 0.560 %, Temperature 32.0 °F	
	12.0 MPa	1740 psi	DAM; ISO 11403-1 -2
	@Strain 0.600 %, Temperature -20.0 °C	@Strain 0.600 %, Temperature -4.00 °F	
	19.2 MPa	2780 psi	DAM; ISO 11403-1 -2
	@Strain 2.00 %, Temperature 40.0 °C	@Strain 2.00 %, Temperature 104 °F	

Mechanical Properties	27.9 MPa Metric	4050 psi English	Comments DAM; ISO 11403-1 -2
	@Strain 3.50 %, Temperature 40.0 °C	@Strain 3.50 %, Temperature 104 °F	
	32.0 MPa	4640 psi	
	@Strain 2.00 %, Temperature 23.0 °C	@Strain 2.00 %, Temperature 73.4 °F	DAM; ISO 11403-1 -2
	38.5 MPa	5580 psi	
	@Strain 2.24 %, Temperature 0.000 °C	@Strain 2.24 %, Temperature 32.0 °F	DAM; ISO 11403-1 -2
	43.7 MPa	6340 psi	
	@Strain 2.40 %, Temperature -20.0 °C	@Strain 2.40 %, Temperature -4.00 °F	DAM; ISO 11403-1 -2
	45.5 MPa	6600 psi	
	@Strain 3.50 %, Temperature 23.0 °C	@Strain 3.50 %, Temperature 73.4 °F	DAM; ISO 11403-1 -2
	54.3 MPa	7880 psi	
	@Strain 3.92 %, Temperature 0.000 °C	@Strain 3.92 %, Temperature 32.0 °F	DAM; ISO 11403-1 -2
	62.7 MPa	9090 psi	
	@Strain 4.20 %, Temperature -20.0 °C	@Strain 4.20 %, Temperature -4.00 °F	DAM; ISO 11403-1 -2
	2.50 MPa	363 psi	
	@Strain 0.830 %, Time 3.60e+6 sec	@Strain 0.830 %, Time 1000 hour	50%RH; isochronous; ISO 11403-1 -2
	5.00 MPa	725 psi	
	@Strain 0.310 %, Time 3600 sec	@Strain 0.310 %, Time 1.00 hour	50%RH; isochronous; ISO 11403-1 -2
	5.00 MPa	725 psi	
	@Strain 0.390 %, Time 36000 sec	@Strain 0.390 %, Time 10.0 hour	50%RH; isochronous; ISO 11403-1 -2
	5.00 MPa	725 psi	
	@Strain 0.670 %, Time 360000 sec	@Strain 0.670 %, Time 100 hour	50%RH; isochronous; ISO 11403-1 -2
	20.0 MPa	2900 psi	
	@Strain 4.67 %, Time 36000 sec	@Strain 4.67 %, Time 10.0 hour	50%RH; isochronous; ISO 11403-1 -2
	20.0 MPa	2900 psi	
	@Time 3600 sec,	@Time 1.00 hour,	50%RH; isochronous; ISO 11403-1 -2

Mechanical Properties	Strain 2.26 % Metric	Strain 2.26 % English	Comments
Tensile Strength, Yield	29.0 MPa	4210 psi	50%RH; ISO 527-1/-2
	48.0 MPa	6960 psi	DAM; ISO 527-1/-2
Elongation at Break	>= 50 %	>= 50 %	DAM; Nominal; ISO 527-1/-2
	>= 50 %	>= 50 %	50%RH; Nominal; ISO 527-1/-2
Elongation at Yield	4.0 %	4.0 %	DAM; ISO 527-1/-2
	30 %	30 %	50%RH; ISO 527-1/-2
Tensile Modulus	0.550 GPa	79.8 ksi	50%RH; ISO 527-1/-2
	1.80 GPa	261 ksi	DAM; ISO 527-1/-2
Flexural Modulus	0.550 GPa	79.8 ksi	50%RH; ISO 178
	1.70 GPa	247 ksi	DAM; ISO 178
Secant Modulus	0.7325 GPa	106.2 ksi	DAM; ISO 11403-1 -2
	@Strain 4.00 %, Temperature 40.0 °C	@Strain 4.00 %, Temperature 104 °F	
	0.960 GPa	139 ksi	DAM; ISO 11403-1 -2
	@Strain 2.00 %, Temperature 40.0 °C	@Strain 2.00 %, Temperature 104 °F	
	1.07 GPa	155 ksi	DAM; ISO 11403-1 -2
	@Strain 0.500 %, Temperature 40.0 °C	@Strain 0.500 %, Temperature 104 °F	
	1.1825 GPa	171.51 ksi	DAM; ISO 11403-1 -2
	@Strain 4.00 %, Temperature 23.0 °C	@Strain 4.00 %, Temperature 73.4 °F	
	1.25 GPa	182 ksi	DAM; ISO 11403-1 -2
	@Strain 4.48 %, Temperature 0.000 °C	@Strain 4.48 %, Temperature 32.0 °F	
	1.3625 GPa	197.62 ksi	DAM; ISO 11403-1 -2
	@Strain 4.80 %, Temperature -20.0 °C	@Strain 4.80 %, Temperature -4.00 °F	
	1.60 GPa	232 ksi	DAM; ISO 11403-1 -2
	@Strain 2.00 %, Temperature 23.0 °C	@Strain 2.00 %, Temperature 73.4 °F	
	1.72 GPa	249 ksi	DAM; ISO 11403-1 -2
	@Strain 2.24 %,	@Strain 2.24 %,	

Mechanical Properties	Temperature 0.000 °C Metric	Temperature 32.0 °F English	Comments
	1.762 GPa	255.6 ksi	
	@Strain 0.500 %, Temperature 23.0 °C	@Strain 0.500 %, Temperature 73.4 °F	DAM; ISO 11403-1 -2
	1.82 GPa	264 ksi	
	@Strain 2.40 %, Temperature -20.0 °C	@Strain 2.40 %, Temperature -4.00 °F	DAM; ISO 11403-1 -2
	1.89 GPa	275 ksi	
	@Strain 0.560 %, Temperature 0.000 °C	@Strain 0.560 %, Temperature 32.0 °F	DAM; ISO 11403-1 -2
	2.00 GPa	290 ksi	
	@Strain 0.600 %, Temperature -20.0 °C	@Strain 0.600 %, Temperature -4.00 °F	DAM; ISO 11403-1 -2
Izod Impact, Notched (ISO)	59.0 kJ/m²	28.1 ft-lb/in²	DAM; ISO 180/1A
	95.0 kJ/m²	45.2 ft-lb/in²	50%RH; ISO 180/1A
	13.0 kJ/m²	6.19 ft-lb/in²	
	@Temperature -40.0 °C	@Temperature -40.0 °F	50%RH; ISO 180/1A
	14.0 kJ/m²	6.66 ft-lb/in²	
	@Temperature -30.0 °C	@Temperature -22.0 °F	DAM; ISO 180/1A
	15.0 kJ/m²	7.14 ft-lb/in²	
	@Temperature -30.0 °C	@Temperature -22.0 °F	50%RH; ISO 180/1A
	15.0 kJ/m²	7.14 ft-lb/in²	
	@Temperature -40.0 °C	@Temperature -40.0 °F	DAM; ISO 180/1A
Charpy Impact Unnotched	NB	NB	DAM; ISO 179/1eU
	NB	NB	50%RH; ISO 179/1eU
	NB	NB	
	@Temperature -30.0 °C	@Temperature -22.0 °F	DAM; ISO 179/1eU
	NB	NB	
	@Temperature -30.0 °C	@Temperature -22.0 °F	50%RH; ISO 179/1eU
Charpy Impact, Notched	8.00 J/cm²	38.1 ft-lb/in²	DAM; ISO 179/1eA
	12.0 J/cm²	57.1 ft-lb/in²	50%RH; ISO 179/1eA
	1.70 J/cm²	8.09 ft-lb/in²	
	@Temperature -30.0 °C	@Temperature -22.0 °F	DAM; ISO 179/1eA

Mechanical Properties	Metric N/mm ² /cm ²	English lb/in ²	Comments
	@Temperature -40.0 °C	@Temperature -40.0 °F	50%RH; ISO 179/1eA
	1.80 J/cm ²	8.57 ft-lb/in ²	50%RH; ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	1.80 J/cm ²	8.57 ft-lb/in ²	DAM; ISO 179/1eA
	@Temperature -40.0 °C	@Temperature -40.0 °F	
Tensile Creep Modulus, 1 hour	1270 MPa	184000 psi	50%RH; ISO 11403-1 -2
	@Pressure 15.0 MPa, Temperature 23.0 °C	@Pressure 2180 psi, Temperature 73.4 °F	
	1350 MPa	196000 psi	50%RH; ISO 11403-1 -2
	@Pressure 14.0 MPa, Temperature 23.0 °C	@Pressure 2030 psi, Temperature 73.4 °F	
	1460 MPa	212000 psi	50%RH; ISO 11403-1 -2
	@Pressure 12.0 MPa, Temperature 23.0 °C	@Pressure 1740 psi, Temperature 73.4 °F	
	1520 MPa	220000 psi	50%RH; ISO 11403-1 -2
	@Pressure 10.0 MPa, Temperature 23.0 °C	@Pressure 1450 psi, Temperature 73.4 °F	

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