

DuPont Performance Polymers Zytel® 101 NC010 Nylon 66 (Unverified Data**)

Category : Polymer , Thermoplastic , Nylon , Nylon 66

Material Notes:

Unreinforced Polyamide 66Zytel 101 NC010 is a general purpose polyamide 66 resin for injection molding and extrusion.Information provided by DuPont Performance Polymers

Order this product through the following link:

http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Zytel-101-NC010-Nylon-66-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Density	0.980 g/cc	0.0354 lb/in ³	
	1.14 g/cc	0.0412 lb/in ³	DAM; ISO 1183
Water Absorption	8.5 %	8.5 %	
	@Thickness 2.00 mm	@Thickness 0.0787 in	DAM; Sim. to ISO 62
Moisture Absorption	2.60 %	2.60 %	
	@Thickness 2.00 mm	@Thickness 0.0787 in	DAM; Sim. to ISO 62
Viscosity Test	145 cm ³ /g	145 cm ³ /g	DAM; ISO 307 1157 1628
Linear Mold Shrinkage, Flow	0.014 cm/cm	0.014 in/in	DAM; ISO 294-4 2577
Linear Mold Shrinkage, Transverse	0.014 cm/cm	0.014 in/in	DAM; ISO 294-4 2577
Melt Flow	24 g/10 min	24 g/10 min	
	@Load 1.20 kg, Temperature 275 °C	@Load 2.65 lb, Temperature 527 °F	DAM; cm ³ /10min; ISO 1133

Mechanical Properties	Metric	English	Comments
Hardness, H358/30	85.0 MPa	12300 psi	50%RH; ISO 2039-1
	180 MPa	26100 psi	DAM; ISO 2039-1
Ball Indentation Hardness	160 MPa	23200 psi	DAM; H 961/30; ISO 2039-1
Tensile Strength, Yield	55.0 MPa	7980 psi	50%RH; ISO 527-1/-2
	82.0 MPa	11900 psi	DAM; ISO 527-1/-2
Elongation at Break	25 %	25 %	DAM; Nominal; ISO 527-1/-2
	>= 50 %	>= 50 %	50%RH; Nominal; ISO 527-1/-2
Elongation at Yield	4.5 %	4.5 %	DAM; ISO 527-1/-2
	25 %	25 %	50%RH; ISO 527-1/-2

Mechanical Properties	Metric	English	Comments
Tensile Modulus	3.10 GPa	450 ksi	DAM; ISO 527-1/-2
Flexural Modulus	1.20 GPa	174 ksi	50%RH; ISO 178
	2.80 GPa	406 ksi	DAM; ISO 178
Izod Impact, Notched (ISO)	5.50 kJ/m ²	2.62 ft-lb/in ²	DAM; ISO 180/1A
	12.0 kJ/m ²	5.71 ft-lb/in ²	50%RH; ISO 180/1A
	5.50 kJ/m ² @Temperature -30.0 °C	2.62 ft-lb/in ² @Temperature -22.0 °F	DAM; ISO 180/1A
	5.50 kJ/m ² @Temperature -40.0 °C	2.62 ft-lb/in ² @Temperature -40.0 °F	DAM; ISO 180/1A
Izod Impact, Unnotched (ISO)	NB	NB	DAM; ISO 180/1U
	NB	NB	50%RH; ISO 180/1U
	300 kJ/m ² @Temperature -30.0 °C	143 ft-lb/in ² @Temperature -22.0 °F	DAM; ISO 180/1U
Charpy Impact Unnotched	NB	NB	50%RH; ISO 179/1eU
	NB	NB	DAM; ISO 179/1eU
	40.0 J/cm ² @Temperature -30.0 °C	190 ft-lb/in ² @Temperature -22.0 °F	DAM; ISO 179/1eU
	NB @Temperature -30.0 °C	NB @Temperature -22.0 °F	50%RH; ISO 179/1eU
Charpy Impact, Notched	0.550 J/cm ²	2.62 ft-lb/in ²	DAM; ISO 179/1eA
	1.50 J/cm ²	7.14 ft-lb/in ²	50%RH; ISO 179/1eA
	0.300 J/cm ² @Temperature -30.0 °C	1.43 ft-lb/in ² @Temperature -22.0 °F	50%RH; ISO 179/1eA
	0.450 J/cm ² @Temperature -30.0 °C	2.14 ft-lb/in ² @Temperature -22.0 °F	DAM; ISO 179/1eA
Tensile Creep Modulus, 1 hour	1200 MPa @Time 3600 sec	174000 psi @Time 1.00 hour	50%RH; ISO 899-1
Tensile Creep Modulus, 1000 hours	700 MPa	102000 psi	50%RH; ISO 899-1

Mechanical Properties	@Time 3.60e+6 sec Metric	@Time 1000 hour English	Comments
Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	100 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	55.6 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	DAM; ISO 11359-1/-2
CTE, linear, Transverse to Flow	110 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$	61.1 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$	DAM; ISO 11359-1/-2
Specific Heat Capacity	2.79 J/g- $^{\circ}\text{C}$	0.667 BTU/lb- $^{\circ}\text{F}$	
Thermal Conductivity	0.160 W/m-K	1.11 BTU-in/hr-ft 2 - $^{\circ}\text{F}$	of melt
Melting Point	262 $^{\circ}\text{C}$	504 $^{\circ}\text{F}$	DAM; 10 $^{\circ}\text{C}/\text{min}$; ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	200 $^{\circ}\text{C}$	392 $^{\circ}\text{F}$	DAM; ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	70.0 $^{\circ}\text{C}$	158 $^{\circ}\text{F}$	DAM; ISO 75-1/-2
Vicat Softening Point	240 $^{\circ}\text{C}$	464 $^{\circ}\text{F}$	DAM; 50 $^{\circ}\text{C}/\text{h}$ 50N; ISO 306
Glass Transition Temp, Tg	60.0 $^{\circ}\text{C}$	140 $^{\circ}\text{F}$	DAM; 10 $^{\circ}\text{C}/\text{min}$; ISO 11357-1/-2
Flammability, UL94	V-2	V-2	DAM; IEC 60695-11-10
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	V-2	V-2	DAM; IEC 60695-11-10
	@Thickness 0.700 mm	@Thickness 0.0276 in	
Oxygen Index	28 %	28 %	DAM; ISO 4589-1/-2

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+13 ohm-cm	1.00e+13 ohm-cm	50%RH; IEC 60093
	1.00e+15 ohm-cm	1.00e+15 ohm-cm	DAM; IEC 60093
Surface Resistance	1.00e+12 ohm	1.00e+12 ohm	50%RH; IEC 60093
Dielectric Constant	3.5	3.5	DAM; IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	3.8	3.8	DAM; IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
	4.0	4.0	50%RH; IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	6.0	6.0	

Electrical Properties	Metric @Frequency 100 Hz	English @Frequency 100 Hz	50%RH; IEC 60250 Comments
Dielectric Strength	28.0 kV/mm	711 kV/in	50%RH; IEC 60243-1
	32.0 kV/mm	813 kV/in	DAM; IEC 60243-1
Dissipation Factor	0.0080	0.0080	DAM; IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
	0.018	0.018	DAM; IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	0.075	0.075	50%RH; IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	0.21	0.21	50%RH; IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	

Descriptive Properties	Value	Comments
Delivery Form	Pellets	
Eff. thermal diffusivity	5.00E-08 m²/s	
Part Marking Code	>PA66<	ISO 11469
Processing	Injection Moulding	
Regional Availability	Asia Pacific	
	Europe	
	Global	
	Near East/Africa	
	North America	
	South and Central America	
Resin Identification	PA66	

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