

DuPont Performance Polymers Zytel® FG42L NC010 Nylon 66 (Unverified Data**)

Category : Polymer , Thermoplastic , Nylon , Nylon 66

Material Notes:

Unreinforced High Viscosity Polyamide 66 with Developed for Food Contact Applications Information provided by DuPont Performance Polymers

Order this product through the following link:

http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Zytel-FG42L-NC010-Nylon-66-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Density	1.01 g/cc	0.0365 lb/in ³	
	1.14 g/cc	0.0412 lb/in ³	DAM; ISO 1183
Water Absorption	8.5 %	8.5 %	DAM; Sim. to ISO 62
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Moisture Absorption	2.60 %	2.60 %	DAM; Sim. to ISO 62
	@Thickness 2.00 mm	@Thickness 0.0787 in	
Viscosity Test	280 cm ³ /g	280 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

Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	52.0 MPa	7540 psi	50%RH; ISO 527-1/-2
	83.0 MPa	12000 psi	DAM; ISO 527-1/-2
Elongation at Break	40 %	40 %	DAM; Nominal; ISO 527-1/-2
	>= 50 %	>= 50 %	50%RH; Nominal; ISO 527-1/-2
Elongation at Yield	5.0 %	5.0 %	DAM; ISO 527-1/-2
	27 %	27 %	50%RH; ISO 527-1/-2
Tensile Modulus	1.20 GPa	174 ksi	50%RH; ISO 527-1/-2
	3.10 GPa	450 ksi	DAM; ISO 527-1/-2
Charpy Impact Unnotched	NB	NB	50%RH; ISO 179/1eU
	NB	NB	DAM; ISO 179/1eU

Mechanical Properties	NB Metric	NB English	Comments
	@Temperature -30.0 °C	@Temperature -22.0 °F	50%RH; ISO 179/1eU
	NB	NB	DAM; ISO 179/1eU
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact, Notched	0.600 J/cm ²	2.86 ft-lb/in ²	DAM; ISO 179/1eA
	2.00 J/cm ²	9.52 ft-lb/in ²	50%RH; ISO 179/1eA
	0.400 J/cm ²	1.90 ft-lb/in ²	50%RH; ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
	0.550 J/cm ²	2.62 ft-lb/in ²	DAM; ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	100 µm/m-°C	55.6 µin/in-°F	DAM; ISO 11359-1/-2
CTE, linear, Transverse to Flow	100 µm/m-°C	55.6 µin/in-°F	DAM; ISO 11359-1/-2
Specific Heat Capacity	2.79 J/g-°C	0.667 BTU/lb-°F	
Thermal Conductivity	0.160 W/m-K	1.11 BTU-in/hr-ft ² -°F	of melt
Melting Point	262 °C	504 °F	DAM; 10°C/min; ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	205 °C	401 °F	DAM; ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	72.0 °C	162 °F	DAM; ISO 75-1/-2
Vicat Softening Point	244 °C	471 °F	DAM; 50°C/h 50N; ISO 306
Glass Transition Temp, Tg	70.0 °C	158 °F	DAM; 10°C/min; ISO 11357-1/-2
Flammability, UL94	HB	HB	DAM; IEC 60695-11-10
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	V-2	V-2	DAM; IEC 60695-11-10
	@Thickness 3.00 mm	@Thickness 0.118 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

Electrical Properties	Metric	English	Comments
Dielectric Constant	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	DAM; IEC 60250
	4.2	4.2	50%RH; IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
	4.3	4.3	DAM; IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	10	10	50%RH; IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
Dielectric Strength	31.0 kV/mm	787 kV/in	DAM; IEC 60243-1
Dissipation Factor	0.015	0.015	DAM; IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	
	0.015	0.015	DAM; IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dissipation Factor	0.075	0.075	50%RH; IEC 60250
	@Frequency 1.00e+6 Hz	@Frequency 1.00e+6 Hz	
Dissipation Factor	0.20	0.20	50%RH; IEC 60250
	@Frequency 100 Hz	@Frequency 100 Hz	

Descriptive Properties	Value	Comments
Additives	Release agent	
Delivery Form	Pellets	
Processing	Casting	
	Coatable	
	Film Extrusion	
	Injection Moulding	
	Other Extrusion	
	Profile Extrusion	
	Sheet Extrusion	

Regional Availability Descriptive Properties	Asia Pacific Value	Comments
	Europe	
	Global	
	Near East/Africa	
	North America	
	South and Central America	

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