

DuPont Performance Polymers Zytel® FE5382 BK276 Nylon 612 (Unverified Data**)

Category : Polymer , Thermoplastic , Nylon , Nylon 612 , Nylon 612, Glass Fiber Filler

Material Notes:

33% Glass Reinforced Polyamide 612 Developed for Electrical and Electronics Applications Zytel FE5382 BK276 is a 33% glass fiber reinforced heat stabilized black polyamide 612 resin developed for electrical bobbins and encapsulation applications. Information provided by DuPont Performance Polymers

Order this product through the following link:

http://www.lookpolymers.com/polymer_DuPont-Performance-Polymers-Zytel-FE5382-BK276-Nylon-612-nbspUnverified-Data.php

Physical Properties	Metric	English	Comments
Density	1.12 g/cc	0.0405 lb/in ³	
	1.32 g/cc	0.0477 lb/in ³	DAM; ISO 1183
Water Absorption	1.8 %	1.8 %	
	@Thickness 2.00 mm	@Thickness 0.0787 in	DAM; Sim. to ISO 62
Moisture Absorption	0.700 %	0.700 %	
	@Thickness 2.00 mm	@Thickness 0.0787 in	DAM; Sim. to ISO 62
Viscosity	29770 cP	29770 cP	
	@Shear Rate 5000 1/s, Temperature 300 °C	@Shear Rate 5000 1/s, Temperature 572 °F	ISO 11403-1 -2
	35755 cP	35755 cP	
	@Shear Rate 5000 1/s, Temperature 290 °C	@Shear Rate 5000 1/s, Temperature 554 °F	ISO 11403-1 -2
	43576 cP	43576 cP	
	@Shear Rate 5000 1/s, Temperature 280 °C	@Shear Rate 5000 1/s, Temperature 536 °F	ISO 11403-1 -2
	69238 cP	69238 cP	
	@Shear Rate 500 1/s, Temperature 300 °C	@Shear Rate 500 1/s, Temperature 572 °F	ISO 11403-1 -2
	83186 cP	83186 cP	
	@Shear Rate 500 1/s, Temperature 290 °C	@Shear Rate 500 1/s, Temperature 554 °F	ISO 11403-1 -2
	101400 cP	101400 cP	
	@Shear Rate 500 1/s, Temperature 280 °C	@Shear Rate 500 1/s, Temperature 536 °F	ISO 11403-1 -2
Linear Mold Shrinkage, Flow	0.0030 cm/cm	0.0030 in/in	DAM; ISO 294-4 2577

Physical Properties	Metric	English	Comments
	@Thickness 3.20 mm	@Thickness 0.126 in	DAM
Linear Mold Shrinkage, Transverse	0.0090 cm/cm	0.0090 in/in	DAM; ISO 294-4 2577
	0.010 cm/cm	0.010 in/in	DAM; ASTM D149
	@Thickness 3.20 mm	@Thickness 0.126 in	

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	170 MPa	24700 psi	DAM; ISO 527-1/-2
Elongation at Break	2.5 %	2.5 %	DAM; ISO 527-1/-2
Tensile Modulus	9.80 GPa	1420 ksi	DAM; ISO 527-1/-2
Flexural Modulus	8.40 GPa	1220 ksi	DAM; ISO 178
Izod Impact, Notched (ISO)	11.0 kJ/m ²	5.23 ft-lb/in ²	DAM; ISO 180/1A
	10.0 kJ/m ²	4.76 ft-lb/in ²	DAM; ISO 180/1A
	@Temperature -40.0 °C	@Temperature -40.0 °F	
Charpy Impact, Notched	1.20 J/cm ²	5.71 ft-lb/in ²	DAM; ISO 179/1eA
	1.00 J/cm ²	4.76 ft-lb/in ²	DAM; ISO 179/1eA
	@Temperature -40.0 °C	@Temperature -40.0 °F	

Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	15.0 µm/m-°C	8.33 µin/in-°F	DAM; ISO 11359-1/-2
CTE, linear, Transverse to Flow	110 µm/m-°C	61.1 µin/in-°F	DAM; ISO 11359-1/-2
Specific Heat Capacity	2.13 J/g-°C	0.509 BTU/lb-°F	
Thermal Conductivity	0.260 W/m-K	1.80 BTU-in/hr-ft ² -°F	of melt
Melting Point	218 °C	424 °F	DAM; 10°C/min; ISO 11357-1/-3
Deflection Temperature at 0.46 MPa (66 psi)	216 °C	421 °F	DAM; ISO 75-1/-2
Deflection Temperature at 1.8 MPa (264 psi)	200 °C	392 °F	DAM; ISO 75-1/-2
Flammability, UL94	HB	HB	DAM; IEC 60695-11-10
	@Thickness 1.50 mm	@Thickness 0.0591 in	
	HB	HB	DAM; IEC 60695-11-10

Thermal Properties	@Thickness 0.800 mm Metric	@Thickness 0.0315 in English	Comments
Electrical Properties	Metric	English	Comments
Comparative Tracking Index	600 V	600 V	DAM; IEC 60112

Descriptive Properties	Value	Comments
Additives	Lubricants	
	Release agent	
Delivery Form	Pellets	
Part Marking Code	>PA612-GF33<	ISO 11469
Processing	Injection Moulding	
Regional Availability	Asia Pacific	
	Europe	
	Global	
	Near East/Africa	
	North America	
	South and Central America	
Resin Identification	PA612-GF33	
	PA612-GF33	ISO 1043
Special Characteristics	Heat stabilised or stable to heat	
UL recognition	UL	DAM

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