

PolyOne OnForce™ LFT LF5200-5001 EM Natural Polyolefin, Unspecified

Category: Polymer, Thermoplastic, Polyolefin

Material Notes:

PolyOne's Long Fiber Thermoplastic (LFT) compounds are formulated for demanding applications which require high stiffness and good impact such as metal replacement or other structural applications. These products exhibit enhanced physical and mechanical properties versus standard short fiber products. Benefits of LFT compounds include improved impact strength, elastic modulus, and material strength across wide temperature ranges from subambient to highly elevated. Furthermore, LFT compounds have been shown to offer improved performance in the areas of creep and fatigue performance, improved dimensional stability, and exhibit an exceptional surface finish when compared to traditional highly filled short fiber products.LFT compounds can be processed using equipment similar to that used for short fiber products. The mechanical properties of finished parts depend greatly on the length of the fibers in the molded part; therefore processing conditions must be set carefully in order to minimize fiber breakage. A low shear process is advised, with low back pressure, low screw speed and low-to-medium injection speed. Information provided by PolyOne

Order this product through the following link:

http://www.lookpolymers.com/polymer_PolyOne-OnForce-LFT-LF5200-5001-EM-Natural-Polyolefin-Unspecified.php

Physical Properties	Metric	English	Comments
Density	1.30 g/cc	0.0470 lb/in³	ISO 1183
Linear Mold Shrinkage	0.0030 cm/cm	0.0030 in/in	Measured on a tensile specimen.; ISO 294-4

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	110 MPa	16000 psi	ISO 527-2
Elongation at Break	1.5 %	1.5 %	ISO 527-2
Tensile Modulus	10.5 GPa	1520 ksi	ISO 527-2
Flexural Strength	150 MPa	21800 psi	ISO 178
Flexural Modulus	8.00 GPa	1160 ksi	ISO 178
Charpy Impact Unnotched	4.00 J/cm ²	19.0 ft-lb/in²	ISO 179
Charpy Impact, Notched	2.00 J/cm ²	9.52 ft-lb/in ²	ISO 179
Gardner Impact	10.2 J	7.52 ft-lb	ASTM D5420

Thermal Properties	Metric	English	Comments
Deflection Temperature at 1.8 MPa (264 psi)	112 ℃	234 °F	Unannealed; ISO 75-2/A

Processing Properties	Metric	English	Comments	



Mail Tomperature Processing Properties	210 - 230 °C Metric	A10 - 446 °F English	Comments	
Mold Temperature	60.0°C	140 °F		
Drying Temperature	80.0 °C	176 °F		
Dry Time	2.00 hour	2.00 hour		
Back Pressure	1.00 MPa	145 psi		

Descriptive Properties	Value	Comments
Filler / Reinforcement	Long Glass Fiber	
Forms	Pellets	
Generic Material	Polyolefin, Unspecified	
Generic Name	Polyolefin, Unspecified	
Injection Rate	Slow-Moderate	
Regional Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	North America	
	South America	

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