OnForce™ LFT LF6600-5002 HI BLACK

Polyamide

PolyOne Corporation

Message:

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.

General Information				
Filler / Reinforcement	Long glass fiber			
Forms	Particle			
Physical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Density	1.46	1.46	g/cm³	ISO 1183
Molding Shrinkage [1]	0.30	0.30	%	ISO 294-4
Mechanical	**Dry**	**Conditioned**	**Unit**	**Test Method**
Tensile Modulus	10000	10000	MPa	ISO 527-2
Tensile Stress (Break)	160	160	MPa	ISO 527-2
Tensile Strain (Break)	3.5	3.5	%	ISO 527-2
Flexural Modulus	9200	9200	MPa	ISO 178
Flexural Stress	215	215	MPa	ISO 178
Impact	**Dry**	**Conditioned**	**Unit**	**Test Method**
Charpy Notched Impact Strength	35	35	kJ/m²	ISO 179
Charpy Unnotched Impact Strength	75	75	kJ/m²	ISO 179
Injection	**Dry**	**Unit**		
Drying Temperature	80.0		°C	
Drying Time	4.0		hr	
Processing (Melt) Temp	270 - 300		°C	
Mold Temperature	80.0		°C	
Injection Rate	Slow-Moderate			
Back Pressure	1.00		MPa	

Injection instructions
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.

NOTE

1.	Measured on a tensile specimen. Actual mold shrinkage values are highly dependant on part geometry, mold configuration, and processingconditions.

Recommended distributors for this material

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