OnForce™ LFT PP-50LGF/000 8001

Polypropylene

PolyOne Corporation

Message:

Polyvan's long fiber thermoplastic polymers are used in situations where high hardness and good impact resistance are required, such as metal substitution or other structural applications. These products exhibit enhanced physical and mechanical properties compared to staple fiber products. Its advantages include improved impact strength, elasticity and material strength in different temperature ranges. In addition, compared with traditional high-filled short fiber products, long fiber thermoplastic polymers show improved properties in terms of creep and fatigue resistance, improved dimensional stability and unique surface finish.

General Information			
Filler / Reinforcement	Long glass fiber		
Features	Thermal Stability		
Forms	Particle		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.33	g/cm³	ISO 1183
Molding Shrinkage - Flow [1]	0.20 - 0.50	%	ISO 294-4
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	13500	MPa	ISO 527-2
Tensile Stress (Break)	140	MPa	ISO 527-2
Tensile Strain (Break)	1.3	%	ISO 527-2
Flexural Modulus	10500	MPa	ISO 178
Flexural Stress	185	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength	31	kJ/m²	ISO 179
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature (1.8 MPa, Unannealed)	154	°C	ISO 75-2/A
Injection	**Nominal Value**	**Unit**	
Drying Temperature	80.0	°C	
Drying Time	2.0	hr	
Processing (Melt) Temp	210 - 230	°C	
Mold Temperature	60.0	°C	
Injection Rate	Slow-Moderate		
Back Pressure	1.00	MPa	

Injection instructions
LFT compounds can be processed using equipments similar to those used for short fiber products. The mechanical properties depend greatly on the length of the fibers in the moulded 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 processing conditions.

Recommended distributors for this material

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