OnForce™ LFT LF6600-5018 X2 NHFR NATURAL

Polyamide 66

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			
UL YellowCard	E76261-102290387		
Filler / Reinforcement	Long glass fiber		
Additive	Flame retardancy		
Features	Thermal Stability Halogen-free		
Forms	Particle		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.59	g/cm³	ISO 1183
Molding Shrinkage [1]	0.20	%	ISO 294-4
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	15500	MPa	ISO 527-2
Tensile Stress (Break)	208	MPa	ISO 527-2
Tensile Strain (Break)	1.8	%	ISO 527-2
Flexural Modulus	11200	MPa	ISO 178
Flexural Stress	309	MPa	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength	28	kJ/m²	ISO 179
Charpy Unnotched Impact Strength	80	kJ/m²	ISO 179
Dart Drop Impact	15.6	J	ASTM D5420
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
1.8 MPa, not annealed	240	°C	ISO 75-2/A
8.0 MPa, not annealed	210	°C	ISO 75-2/C
Electrical	**Nominal Value**	**Unit**	**Test Method**
Comparative Tracking Index	600	V	IEC 60112
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (1.60 mm)	V-0		UL 94

Glow Wire Flammability Index (1.60 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature (1.60 mm)	825	°C	IEC 60695-2-13
Oxygen Index	35	%	ISO 4589-2

Additional Information
Railway Applications-Fire Protection: Requirement/Hazard Level (EN 45545-2: 2013)Nominal Value: R22/HL2

Injection	Nominal Value	Unit
Drying Temperature	80.0	°C
Drying Time	4.0	hr
Processing (Melt) Temp	250 - 280	°C
Mold Temperature	90.0 - 120	°C
Injection Rate	Slow-Moderate	
Back Pressure	2.50	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.It is recommended to purge the barrel as soon as the machine is standing still for a prolonged period of time to avoid the degradation of flame retardant fillers.

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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