

LUVOCOM® 1106/XCF/30

Polyether Imide

Lehmann & Voss & Co.

Message:

LUVOCOM® 1106/XCF/30 is a polyetherimide (PEI) material, and the filler is 30% carbon fiber reinforced material. This product is available in North America, Africa and the Middle East, Latin America, Europe or Asia Pacific.

LUVOCOM® The main features of 1106/XCF/30 are:

flame retardant/rated flame

Flame Retardant

Conductivity

High stiffness

high strength

LUVOCOM® Typical application fields of 1106/XCF/30 are: engineering/industrial accessories

General Information			
Filler / Reinforcement	Carbon fiber reinforced material, 30% filler by weight		
Features	Conductivity		
	Rigidity, high		
	High strength		
	Electrostatic discharge protection		
	Good liquidity		
	Heat resistance, high		
	Flame retardancy		
Uses	Pump parts		
	Bushing		
	Gear		
	Bearing		
Appearance	Black		
Physical	Nominal Value	Unit	Test Method
Density	1.40	g/cm ³	ISO 1183
Molding Shrinkage	0.050 - 0.20	%	DIN 16901
Water Absorption (23°C, 24 hr)	< 0.20	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	29000	MPa	ISO 527-2
Tensile Stress (Break)	265	MPa	ISO 527-2
Tensile Strain (Yield)	1.2	%	ISO 527-2
Flexural Modulus	25000	MPa	ISO 178
Flexural Stress	385	MPa	ISO 178
Flexural Strain at Flexural Strength	1.5	%	ISO 178
Insulation Resistance		ohms	IEC 60167
Impact	Nominal Value	Unit	Test Method

Charpy Notched Impact Strength (23°C)	7.0	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	45	kJ/m ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	205	°C	ISO 75-2/A
Continuous Use Temperature	170	°C	UL 746B
CLTE - Flow	3.0E-6	cm/cm/°C	DIN 53752
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	< 1.0E+3	ohms	IEC 60093
Flammability	Nominal Value	Unit	Test Method
Flame Rating ¹	V-0		UL 94
Injection	Nominal Value	Unit	
Drying Temperature			
Hot air dryer, A	120	°C	
Hot air dryer, B	150	°C	
Drying Time			
Hot air dryer, A	> 8.0	hr	
Hot air dryer, B	> 4.0	hr	
Suggested Max Moisture	0.030	%	
Rear Temperature	330 - 350	°C	
Middle Temperature	340 - 390	°C	
Front Temperature	350 - 400	°C	
Nozzle Temperature	350 - 400	°C	
Processing (Melt) Temp	380	°C	
Mold Temperature	150 - 180	°C	

Injection instructions

General

In general LUVOCOM® can be processed on conventional injection moulding machines while observing the usual technical guidelines.

Any added fibrous materials or fillers may have an abrasive effect. In this case the cylinder and screw should be protected against wear as is usual in the processing of reinforced thermoplastic materials.

Lengthy dwell times for the melts in the cylinder should be avoided.

Lower the temperatures during interruptions!

Predrying (optional)

It is advisable to predry the granulate with a suitable dryer immediately before processing.

The granulate may absorb moisture from the air.

Delivery Form & Storage

Unless indicated otherwise, the material is delivered as 3mm-long pellets in sealed bags on pallets.

Preferably storage should be effected in dry and normally temperatured rooms

Additional Information

During processing the moisture level should not exceed 0.03%, otherwise porosity and surface defects (e.g. smearing) may occur. Predrying is recommended even when sealed original containers are being used. To avoid internal stresses, a low shear load should be used for processing.

The processing notes provided merely represent a recommendation for general use. Due to the large variety of machines, geometries and volumes of parts, etc., it may be necessary to employ different settings according to the specific application.

High-temperature polymers place increased demands on the tool steels employed.

Please contact us for further information.

NOTE

1. Not recognized by UL.

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