LUVOCOM® 1100-8301

Polyethersulfone

Lehmann & Voss & Co.

Message:

LUVOCOM® 1100-8301 is a polyethersulfone (PES) material, and the filler is 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 1100-8301 are:

anti-warping

Good stiffness

Wear-resistant

Lubrication

Typical application areas include:

engineering/industrial accessories

Electrical/electronic applications

Aerospace

Sporting goods

medical/health care

General Information				
Filler / Reinforcement	Carbon fiber reinforced material			
Additive	PTFE lubricant			
Features	Low friction coefficient			
	Low warpage			
	Rigid, good			
	Good strength			
	Good wear resistance			
	Lubrication			
Uses	Pump parts			
	Bushing			
	Gear			
	Electrical/Electronic Applications			
	Engineering accessories			
	Aerospace applications			
	Sporting goods			
	Medical/nursing supplies			
	Bearing			

Appearance	Natural color		
Physical	Nominal Value	Unit	Test Method
Density	1.51	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (34	5°C/5.0		
kg)	8.00	cm³/10min	ISO 1133
Molding Shrinkage	0.20 - 0.40	%	DIN 16901

Water Absorption (23°C, 24 hr)	< 0.10	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	10000	MPa	ISO 527-2
Tensile Stress (Break)	90.0	MPa	ISO 527-2
Tensile Strain (Yield)	2.0	%	ISO 527-2
Flexural Modulus	8000	MPa	ISO 178
Flexural Stress	125	MPa	ISO 178
Flexural Strain at Flexural Strength	2.7	%	ISO 178
Maximum operating temperature-Short Term	200	°C	
Insulation Resistance		ohms	IEC 60167
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	6.0	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	20	kJ/m²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	210	°C	ISO 75-2/A
Continuous Use Temperature	180	°C	UL 746B
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	< 1.0E+6	ohms	IEC 60093
Injection	Nominal Value	Unit	
Drying Temperature - Desiccant Dryer	150	°C	
Drying Time - Desiccant Dryer	3.0 - 5.0	hr	
Suggested Max Moisture	0.050	%	
Rear Temperature	355 - 375	°C	
Middle Temperature	360 - 380	°C	
Front Temperature	350 - 370	°C	
Nozzle Temperature	340 - 360	°C	
Processing (Melt) Temp	350	°C	
Mold Temperature	120 - 200	°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 0.05%, otherwise porosity and surface defects (e.g. smearing) may occur. To avoid internal stresses, a low shear load should be used for processing. The parts may be tempered at a later stage to reduce internal stresses.

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.

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