

# LUVOCOM® 1100-8166

Polyethersulfone

Lehmann & Voss & Co.

## Message:

LUVOCOM® 1100-8166 is a polyethersulfone (PES) material, which contains a glass 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 1100-8166 are:

flame retardant/rated flame

sterilizable

Good dimensional stability

Typical application areas include:

Electrical/electronic applications

engineering/industrial accessories

Reflector

Aerospace

Sporting goods

General Information			
Filler / Reinforcement	Glass fiber reinforced material		
Features	Good dimensional stability		
	Good disinfection		
	Good liquidity		
	Hydrolysis resistance		
	Disinfect with steam		
Uses	Thin wall parts		
	Electrical/Electronic Applications		
	Reflector		
	Engineering accessories		
	Aerospace applications		
	Switch		
	Sporting goods		
	Medical/nursing supplies		
Appearance	Natural color		
Physical	Nominal Value	Unit	Test Method
Density	1.50	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage	0.30 - 0.50	%	DIN 16901
Water Absorption (23°C, 24 hr)	< 0.10	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	5500	MPa	ISO 527-2
Tensile Stress (Break)	115	MPa	ISO 527-2
Tensile Strain (Yield)	3.5	%	ISO 527-2
Flexural Modulus	4500	MPa	ISO 178

Flexural Stress	160	MPa	ISO 178
Flexural Strain at Flexural Strength	4.8	%	ISO 178
Maximum operating temperature-Short Term	200	°C	
Insulation Resistance	> 1.0E+12	ohms	IEC 60167
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	9.0	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	55	kJ/m <sup>2</sup>	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
Vicat Softening Temperature	220	°C	ISO 306/A
Flammability	Nominal Value	Unit	Test Method
Flame Rating <sup>1</sup>	V-0		UL 94
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.

#### NOTE

1. Not recognized by UL.

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