# LUVOCOM® 1105-8000

# Polyetheretherketone

Lehmann & Voss & Co.

### Message:

LUVOCOM® 1105-8000 is a polyetheretherketone (PEEK) material, which contains a 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 1105-8000 are:

flame retardant/rated flame

Flame Retardant

Good stiffness

chemical resistance

Wear-resistant

Typical application areas include:

engineering/industrial accessories

textile/fiber

Aerospace

**Automotive Industry** 

medical/health care

General Information					
Filler / Reinforcement	Carbon fiber reinforced material				
Additive	Lubricant				
Features	Low friction coefficient				
	Rigid, good				
	Good strength				
	Good chemical resistance				
	Good wear resistance				
	Lubrication				
	Hydrolysis stability				
	Self-lubricating				
	Flame retardancy				
Uses	Pump parts				
	Bushing				
	Gear				
	Textile applications				
	Engineering accessories				
	Aerospace applications				
	Application in Automobile Field				
	Medical/nursing supplies				
	Bearing				
Appearance	Grey				
Physical	Nominal Value	Unit	Test Method		

Density	1.56	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (380°C/10.0 kg)	20	g/10 min	ISO 1133
Molding Shrinkage	0.30 - 0.60	%	DIN 16901
Water Absorption (23°C, 24 hr)	< 0.10	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	15000	MPa	ISO 527-2
Tensile Stress (Break)	170	MPa	ISO 527-2
Tensile Strain (Yield)	1.5	%	ISO 527-2
Flexural Modulus	13000	MPa	ISO 178
Flexural Stress	235	MPa	ISO 178
Flexural Strain at Flexural Strength	2.0	%	ISO 178
Maximum operating temperature-Short	2.0	70	150 170
Term	280	°C	
Insulation Resistance	> 1.0E+9	ohms	IEC 60167
Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength (23°C)	35	kJ/m²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa,			
Unannealed)	260	°C	ISO 75-2/A
Continuous Use Temperature	250	°C	UL 746B
Vicat Softening Temperature	295	°C	ISO 306/A
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+9	ohms	IEC 60093
Flammability	Nominal Value	Unit	Test Method
Flame Rating <sup>1</sup>	V-0		UL 94
Injection	Nominal Value	Unit	
Drying Temperature			
Hot air dryer, A	150	°C	
Hot air dryer, B	120	°C	
Drying Time			
Hot air dryer, A	3.0 - 6.0	hr	
Hot air dryer, B	6.0 - 8.0	hr	
Suggested Max Moisture	0.050	%	
Rear Temperature	360 - 370	°C	
Middle Temperature	380 - 390	°C	
Front Temperature	390 - 400	°C	
Nozzle Temperature	360 - 380	°C	
Processing (Melt) Temp	390	°C	
Mold Temperature	170 - 190	°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 content should not exceed 0.05%. To avoid internal stresses, a medium to high injection rate should be used. An increase in tool temperature may be helpful. Post-crystallization may lead to warpage at elevated operating temperatures. This can be counteracted by suitable heat treatment.

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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### Recommended distributors for this material

## Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533 Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China



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