# LUVOCOM® 1105-8002 VP

## Polyetheretherketone

Lehmann & Voss & Co.

## Message:

LUVOCOM® 1105-8002 VP is a polyetheretherketone (PEEK) 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 characteristics of 1105-8002 VP are:

Flame Retardant

Conductivity

High stiffness

high strength

Electrostatic protection

Typical application areas include:

engineering/industrial accessories

textile/fiber

Aerospace

**Automotive Industry** 

medical/health care

General Information					
Filler / Reinforcement	Carbon fiber reinforced material				
Features	Conductivity				
	Rigidity, high				
	High strength				
	Electrostatic discharge protection				
	Good chemical resistance				
	Hydrolysis stability				
	Flame retardancy				
Uses	Pump parts				
	Bushing				
	Gear				
	Textile applications				
	Engineering accessories				
	Aerospace applications				
	Application in Automobile Field				
	Medical/nursing supplies				
	Bearing				
Appearance	Natural color				
Physical	Nominal Value	Unit	Test Method		
Density	1.40	g/cm³	ISO 1183		
Melt Volume-Flow Rate (MVR) (380°C/10.0		3.40	100 1100		
kg)	60.0	cm³/10min	ISO 1133		
Molding Shrinkage	0.050 - 0.30	%	DIN 16901		

Water Absorption (23°C, 24 hr)	< 0.10	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	27000	МРа	ISO 527-2
Tensile Stress (Break)	295	MPa	ISO 527-2
Tensile Strain (Yield)	1.8	%	ISO 527-2
Flexural Modulus	23000	MPa	ISO 178
Flexural Stress	425	MPa	ISO 178
Flexural Strain at Flexural Strength	2.1	%	ISO 178
Maximum operating temperature-Short Term	300	°C	
Insulation Resistance		ohms	IEC 60167
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	8.0	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	60	kJ/m²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Continuous Use Temperature	250	°C	UL 746B
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	< 1.0E+3	ohms	IEC 60093
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	

#### 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.

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### Recommended distributors for this material

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