# LUVOCOM® 1105-8099 VP

## Polyetheretherketone

Lehmann & Voss & Co.

### Message:

LUVOCOM®1105-8099 VP is a polyetheretherketone (PEEK) material, which contains mineral fillers. This product is available in North America, Africa and the Middle East, Latin America, Europe or Asia Pacific. LUVOCOM®The main features of 1105-8099 VP are: flame retardant/rated flame Flame Retardant sterilizable Good dimensional stability chemical resistance Typical application areas include: Electrical/electronic applications Reflector textile/fiber engineering/industrial accessories

Aerospace

General Information			
Filler / Reinforcement	Mineral filler		
Features	Good dimensional stability		
	Good disinfection		
	Good chemical resistance		
	Heat resistance, high		
	Hydrolysis stability		
	Flame retardancy		
Uses	Reflector		
	Textile applications		
	Engineering accessories		
	Aerospace applications		
	Switch		
	Application in Automobile Field		
	Medical/nursing supplies		
Appearance	Natural color		
Physical	Nominal Value	Unit	Test Method
Density	1.63	g/cm³	ISO 1183
Molding Shrinkage	1.0 - 1.6	%	DIN 16901
Water Absorption (23°C, 24 hr)	< 0.10	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	5000	MPa	ISO 527-2
Tensile Stress (Break)	80.0	MPa	ISO 527-2

Tensile Strain (Yield) 4.0	%	ISO 527-2
Flexural Modulus 4000	MPa	ISO 178
Flexural Stress 120	MPa	ISO 178
Flexural Strain at Flexural Strength 6.0	%	ISO 178
Maximum operating temperature-Short Term 270	°C	
Insulation Resistance > 1.0E+12	ohms	IEC 60167
Impact Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength (23°C) 55	kJ/m²	ISO 179/1fU
Thermal Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed) 240	°C	ISO 75-2/A
Continuous Use Temperature 250	°C	UL 746B
CLTE - Flow 4.0E-5	cm/cm/°C	DIN 53752
Thermal Conductivity 0.35	W/m/K	DIN 52612
Electrical Nominal Value	Unit	Test Method
Surface Resistivity > 1.0E+12	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

