# LUVOCOM® 1105-7197/BK

## Polyetheretherketone

### Lehmann & Voss & Co.

#### Message:

LUVOCOM®1105-7197/BK is a polyetheretherketone (PEEK) material. This product is available in North America, Africa and the Middle East, Latin America, Europe or Asia Pacific. LUVOCOM®The main characteristics of 1105-7197/BK are: chemical resistance Wear-resistant Lubrication Hydrolytic stability Typical application areas include: engineering/industrial accessories textile/fiber Aerospace Automotive Industry medical/health care

General Information				
Additive	PTFE lubricant			
Features	Low friction coefficient			
	Good chemical resistance			
	Good wear resistance			
	Lubrication			
	Hydrolysis stability			
Uses	Pump parts			
	Bushing			
	Gear			
	Textile applications			
	Engineering accessories			
	Aerospace applications			
	Application in Automobile Field			
	Medical/nursing supplies			
	Bearing			
Appearance	Black			
Physical	Nominal Value	Unit	Test Method	
Density	1.40	g/cm³	ISO 1183	
Melt Mass-Flow Rate (MFR) (380°C/5.0 kg)	50	g/10 min	ISO 1133	
Melt Volume-Flow Rate (MVR) (380°C/5.0	10.0	3/40	100 1100	
kg)	40.0	cm³/10min	ISO 1133	
Molding Shrinkage	1.0 - 1.6	%	DIN 16901	
Water Absorption (23°C, 24 hr)	< 0.10	%		

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	3000	MPa	ISO 527-2
Tensile Stress (Break)	62.0	MPa	ISO 527-2
Tensile Strain (Yield)	2.5	%	ISO 527-2
Flexural Modulus	2500	MPa	ISO 178
Flexural Stress	85.0	MPa	ISO 178
Flexural Strain at Flexural Strength	3.0	%	ISO 178
Maximum operating temperature-Short Term	260	°C	
Insulation Resistance	> 1.0E+12	ohms	IEC 60167
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	4.0	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	60	kJ/m²	ISO 179/1fU
Thermal	Nominal Value	Unit	Test Method
Continuous Use Temperature	250	°C	UL 746B
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, A Hot air dryer, B	3.0 - 6.0 6.0 - 8.0	hr hr	
Hot air dryer, B	6.0 - 8.0	hr	
Hot air dryer, B Suggested Max Moisture	6.0 - 8.0 0.050	hr %	
Hot air dryer, B Suggested Max Moisture Rear Temperature	6.0 - 8.0 0.050 360 - 370	hr % °C	
Hot air dryer, B Suggested Max Moisture Rear Temperature Middle Temperature	6.0 - 8.0 0.050 360 - 370 380 - 390	hr % °C °C	
Hot air dryer, B Suggested Max Moisture Rear Temperature Middle Temperature Front Temperature	6.0 - 8.0 0.050 360 - 370 380 - 390 390 - 400	hr % °C °C	
Hot air dryer, B Suggested Max Moisture Rear Temperature Middle Temperature Front Temperature Nozzle Temperature	6.0 - 8.0 0.050 360 - 370 380 - 390 390 - 400 360 - 380	hr % °C °C °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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