# LUVOCOM® 1105-9020/T

# Polyetheretherketone

## **LEHVOSS Group**

### Message:

LUVOCOM® 1105-9020/T 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 features of 1105-9020/T are:

Flame Retardant

Good dimensional stability

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	Good dimensional stability
	Low friction coefficient
	Rigid, good
	Good strength
	Good chemical resistance
	Good wear resistance
	Heat resistance, high
	Lubrication
	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	1.62	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (380°C/10.0		•	
kg)	15.0	cm³/10min	ISO 1133
Molding Shrinkage	0.20 - 0.60	%	DIN 16901
Water Absorption (23°C, 24 hr)	< 0.10	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	16000	MPa	ISO 527-2
Tensile Stress (Break)	155	MPa	ISO 527-2
Tensile Strain (Yield)	1.6	%	ISO 527-2
Flexural Modulus	13000	MPa	ISO 178
Flexural Stress	215	MPa	ISO 178
Flexural Strain at Flexural Strength	2.1	%	ISO 178
Maximum operating temperature-Short Term	270	°C	
Insulation Resistance		ohms	IEC 60167
Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength			
-30°C	28	kJ/m²	ISO 179/1fU
23°C	30	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	320	°C	ISO 306/A
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	< 1.0E+7	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	
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 - 200	°C	
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#### 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

# 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

