# LUVOCOM® 1105-9012/T

## Polyetheretherketone

Lehmann & Voss & Co.

### Message:

LUVOCOM® 1105-9012/T is a polyetheretherketone (PEEK) material, and the filler is carbon fiber reinforced material. This product is available in Europe. LUVOCOM® The main features of 1105-9012/T are:

Flame Retardant

Good stiffness

chemical resistance

Wear-resistant

Lubrication

Typical application areas include:

engineering/industrial accessories

textile/fiber

Aerospace

Automotive Industry

medical/health care

General Information					
Filler / Reinforcement	Carbon fiber reinforced material				
Additive	PTFE 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	Natural color				
Physical	Nominal Value	Unit	Test Method		
Density	1.44	g/cm³	ISO 1183		

Melt Mass-Flow Rate (MFR) (380°C/10.0 kg)	< 10	g/10 min	ISO 1133
Molding Shrinkage	0.20 - 0.50	%	DIN 16901
Water Absorption (23°C, 24 hr)	< 0.10	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	13000	MPa	ISO 527-2
Tensile Stress (Break)	140	MPa	ISO 527-2
Tensile Strain (Yield)	1.7	%	ISO 527-2
Flexural Modulus	10000	MPa	ISO 178
Flexural Stress	205	MPa	ISO 178
Flexural Strain at Flexural Strength	2.9	%	ISO 178
Maximum operating temperature-Short Term	260	°C	
Insulation Resistance		ohms	IEC 60167
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	7.0	kJ/m²	ISO 179/1eA
23°C	7.0	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength			
-30°C	25	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	300	°C	ISO 306/A
CLTE - Flow	3.0E-5	cm/cm/°C	DIN 53752
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	
Suggested Max Moisture	0.050	%	
Rear Temperature	360 - 370	°C	
Middle Terrisonations			
Middle Temperature	380 - 390	°C	
Front Temperature	380 - 390 390 - 400	°C	
Front Temperature			
·	390 - 400	°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.

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#### Recommended distributors for this material

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