LUVOCOM® 1105-8174

Polyetheretherketone

Lehmann & Voss & Co.

Message:

LUVOCOM® 1105-8174 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 features of 1105-8174 are:

flame retardant/rated flame

Flame Retardant

anti-warping

chemical resistance

Wear-resistant

Typical application areas include:

textile/fiber

engineering/industrial accessories

Aerospace

Automotive Industry

medical/health care

General Information

Additive	PTFE lubricant				
Features	Low friction coefficient				
	Low warpage				
	Good chemical resistance				
	Good wear resistance				
	Lubrication				
	Hydrolysis stability				
	Flame retardancy				
Uses	Textile applications				
	Engineering accessories				
	Aerospace applications				
	Application in Automobile Field				
	Medical/nursing supplies				
Appearance	Dark gray				
Physical	Nominal Value	Unit	Test Method		
Density	1.46	g/cm³	ISO 1183		
Melt Volume-Flow Rate (MVR) (380°C/	/10.0				
kg)	15.0	cm³/10min	ISO 1133		
Molding Shrinkage	0.90 - 1.5	%	DIN 16901		
Water Absorption (23°C, 24 hr)	< 0.10	%			
Mechanical	Nominal Value	Unit	Test Method		
Tensile Modulus	4000	MPa	ISO 527-2		
Tensile Stress (Break)	85.0	MPa	ISO 527-2		

Tensile Strain (Yield)	3.5	%	ISO 527-2
Flexural Modulus	3500	MPa	ISO 178
Flexural Stress	125	MPa	ISO 178
Flexural Strain at Flexural Strength	4.7	%	ISO 178
Maximum operating temperature-Short			
Term	260	°C	
Insulation Resistance	> 1.0E+12	ohms	IEC 60167
Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength (23°C)	40	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+12	ohms	IEC 60093
Flammability	Nominal Value	Unit	Test Method
Flame Rating ¹	V-0		UL 94
Injection	Nominal Value	Unit	
Drying Temperature			
Hot air dryer, A	150	°C	
Hot air dryer, B	120	°C	
·	120		
Hot air dryer, B Drying Time Hot air dryer, A	3.0 - 6.0		
Drying Time		°C	
Drying Time Hot air dryer, A Hot air dryer, B	3.0 - 6.0	°C hr	
Drying Time Hot air dryer, A Hot air dryer, B Suggested Max Moisture	3.0 - 6.0 6.0 - 8.0	°C hr	
Drying Time Hot air dryer, A	3.0 - 6.0 6.0 - 8.0 0.050	°C hr hr	
Drying Time Hot air dryer, A Hot air dryer, B Suggested Max Moisture Rear Temperature Middle Temperature	3.0 - 6.0 6.0 - 8.0 0.050 360 - 370	°C hr hr %	
Drying Time Hot air dryer, A Hot air dryer, B Suggested Max Moisture Rear Temperature Middle Temperature Front Temperature	3.0 - 6.0 6.0 - 8.0 0.050 360 - 370 380 - 390	°C hr hr % °C °C	
Drying Time Hot air dryer, A Hot air dryer, B Suggested Max Moisture Rear Temperature Middle Temperature Front Temperature Nozzle Temperature	3.0 - 6.0 6.0 - 8.0 0.050 360 - 370 380 - 390 390 - 400	°C hr hr % °C °C °C	
Drying Time Hot air dryer, A Hot air dryer, B Suggested Max Moisture Rear Temperature	3.0 - 6.0 6.0 - 8.0 0.050 360 - 370 380 - 390 390 - 400 360 - 380	°C hr 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.

NOTE

1.

Not recognized by UL.

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