LUVOCOM® 1105-0918/EM/BL

Polyetheretherketone

Lehmann & Voss & Co.

Message:

General Information

LUVOCOM® 1105-0918/EM/BL is a polyetheretherketone (PEEK) material, which contains a glass fiber reinforced material. This product is available in North America, Africa and the Middle East, Latin America, Europe or Asia Pacific. LUVOCOM® The main characteristics of 1105-0918/EM/BL are: flame retardant/rated flame Flame Retardant Good dimensional stability Good stiffness chemical resistance Typical application areas include: textile/fiber engineering/industrial accessories Aerospace Automotive Industry medical/health care

Filler / Reinforcement	Glass fiber reinforced mat	Glass fiber reinforced material						
Features	Good dimensional stability							
	Rigid, good							
	Good strength							
	Good chemical resistance							
	Heat resistance, high Hydrolysis stability Flame retardancy							
						Uses	Textile applications	
		Engineering accessories						
	Aerospace applications							
	Application in Automobile Field							
	Medical/nursing supplies							
Appearance	Blue							
Physical	Nominal Value	Unit	Test Method					
Density	1.57	g/cm³	ISO 1183					
Molding Shrinkage	0.30 - 0.70	%	DIN 16901					
Water Absorption (23°C, 24 hr)	< 0.10	%						
Mechanical	Nominal Value	Unit	Test Method					
Tensile Modulus	11000	MPa	ISO 527-2					
Tensile Stress (Break)	145	MPa	ISO 527-2					
Tensile Strain (Yield)	1.8	%	ISO 527-2					

Flexural Modulus	9000	MPa	ISO 178
Flexural Stress	205	MPa	ISO 178
Coefficient of Friction			
Dynamic	0.32		
Static	0.30		
Flexural Strain at Flexural Strength	2.2	%	ISO 178
Maximum operating temperature-Short Term	280	°C	
Insulation Resistance	> 1.0E+12	ohms	IEC 60167
Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength			ISO 179/1fU
-30°C	35	kJ/m²	ISO 179/1fU
23°C	30	kJ/m²	ISO 179/1fU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	315	°C	ISO 75-2/A
Continuous Use Temperature	250	°C	UL 746B
Vicat Softening Temperature	325	°C	ISO 306/A
CLTE - Flow	2.2E-5	cm/cm/°C	DIN 53752
Thermal Conductivity	0.40	W/m/K	DIN 52612
Flammability	Nominal Value	Unit	Test Method
Flame Rating ¹	V-0		UL 94
Injection	Nominal Value	Unit	
Drying Temperature			
Hot air dryer, A	150		
	150	°C	
Hot air dryer, B	120	°C	
Hot air dryer, B			
Hot air dryer, B			
Hot air dryer, B Drying Time	120	°C	
Hot air dryer, B Drying Time Hot air dryer, A Hot air dryer, B	120 3.0 - 6.0	°C hr	
Hot air dryer, B Drying Time Hot air dryer, A	120 3.0 - 6.0 6.0 - 8.0	°C hr hr	
Hot air dryer, B Drying Time Hot air dryer, A Hot air dryer, B Suggested Max Moisture Rear Temperature	120 3.0 - 6.0 6.0 - 8.0 0.050	°C hr hr %	
Hot air dryer, B Drying Time Hot air dryer, A Hot air dryer, B Suggested Max Moisture	120 3.0 - 6.0 6.0 - 8.0 0.050 360 - 370	°C hr hr % °C	
Hot air dryer, B Drying Time Hot air dryer, A Hot air dryer, B Suggested Max Moisture Rear Temperature Middle Temperature	120 3.0 - 6.0 6.0 - 8.0 0.050 360 - 370 380 - 390	°C hr hr % °C °C	
Hot air dryer, B Drying Time Hot air dryer, A Hot air dryer, B Suggested Max Moisture Rear Temperature Middle Temperature Front Temperature	120 3.0 - 6.0 6.0 - 8.0 0.050 360 - 370 380 - 390 390 - 400	°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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