LUVOCOM® 1105-0918/BL

Polyetheretherketone

Lehmann & Voss & Co.

Message:

LUVOCOM® 1105-0918/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 features of 1105-0918/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

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 % Test Method Mechanical Nominal Value Unit Test Method Tensile Modulus 11000 MPa ISO 527-2 Tensile Stress (Break) 145 MPa ISO 527-2	General Information					
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) Vominal Value Unit Test Method Density Test Method Unit Test Method Density Water Absorption (23°C, 24 hr) Vominal Value Unit Test Method Density Vominal Value	Filler / Reinforcement	Glass fiber reinforced mat	erial			
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Density 1.57 g/cm³ ISO 1183 Molding Shrinkage 0.30 - 0.70 % DIN 16901 Water Absorption (23°C, 24 hr) < 0.10	Appearance	Blue				
Molding Shrinkage 0.30 - 0.70 % DIN 16901 Water Absorption (23°C, 24 hr) < 0.10	Physical	Nominal Value	Unit	Test Method		
Water Absorption (23°C, 24 hr)< 0.10%MechanicalNominal ValueUnitTest MethodTensile Modulus11000MPaISO 527-2Tensile Stress (Break)145MPaISO 527-2	Density	1.57	g/cm³	ISO 1183		
MechanicalNominal ValueUnitTest MethodTensile Modulus11000MPaISO 527-2Tensile Stress (Break)145MPaISO 527-2	Molding Shrinkage	0.30 - 0.70	%	DIN 16901		
Tensile Modulus 11000 MPa ISO 527-2 Tensile Stress (Break) 145 MPa ISO 527-2	Water Absorption (23°C, 24 hr)	< 0.10	%			
Tensile Stress (Break) 145 MPa ISO 527-2	Mechanical	Nominal Value	Unit	Test Method		
	Tensile Modulus	11000	MPa	ISO 527-2		
Tensile Strain (Yield) 2.0 % ISO 527-2	Tensile Stress (Break)	145	MPa	ISO 527-2		
	Tensile Strain (Yield)	2.0	%	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	2.5	%	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	40	kJ/m²	ISO 179/1fU
23°C	35	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	°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 Temperature	380 - 390	°C	
Front Temperature	390 - 400	°C	
Nozzle Temperature	360 - 380	°C	
Processing (Melt) Temp	390	°C	
	170 - 190	°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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