LUVOCOM® 1105-8455

Polyetheretherketone

Lehmann & Voss & Co.

Message:

General Information

LUVOCOM®1105-8455 is a polyetheretherketone (PEEK) material, which contains a carbon fiber reinforced material. This product is available in Europe. LUVOCOM®The main features of 1105-8455 are: flame retardant/rated flame Flame Retardant Conductivity High stiffness high strength Typical application areas include: engineering/industrial accessories textile/fiber Aerospace Automotive Industry medical/health care

Filler / Reinforcement	Carbon fiber reinforced ma	terial							
Features	Conductivity Rigidity, high High strength Electrostatic discharge protection Good chemical resistance Hydrolysis stability Flame retardancy								
					Uses	Pump parts			
						Bushing			
						Gear			
						Textile applications			
Engineering accessories									
Aerospace applications									
Application in Automobile Field									
Medical/nursing supplies									
Bearing									
Appearance	Black								
Physical	Nominal Value	Unit	Test Method						
Density	1.39	g/cm³	ISO 1183						
Molding Shrinkage	0.20 - 0.50	%	DIN 16901						
Water Absorption (23°C, 24 hr)	< 0.10	%							
Mechanical	Nominal Value	Unit	Test Method						

Tensile Modulus	17000	MPa	ISO 527-2
Tensile Stress (Break)	175	MPa	ISO 527-2
Tensile Strain (Yield)	2.1	%	ISO 527-2
Flexural Modulus	15000	MPa	ISO 178
Flexural Stress	255	MPa	ISO 178
Flexural Strain at Flexural Strength	2.5	%	ISO 178
Maximum operating temperature-Short Term	280	°C	
Insulation Resistance		ohms	IEC 60167
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	8.0	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	35	kJ/m²	ISO 179/1fU
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+5	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	
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	
Mold Temperature	170 - 190	°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.

NOTE

1.

Not recognized by UL.

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