LUVOCOM® 1104-VAP 10

Polyether Ketone

Lehmann & Voss & Co.

Message:

LUVOCOM®1104-VAP 10 is a polyether ketone (PEK) material, and the filler is carbon 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 1104-VAP 10 are: good rigidity.
Typical application areas include:
engineering/industrial accessories
Automotive Industry

General Information			
Filler / Reinforcement	Carbon fiber reinforced material		
Features	Rapid Static Decay Rigid, good Good liquidity Good strength		
Uses	Engineering accessories Application in Automobile Field		
Appearance	Natural color		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.41	g/cm³	ISO 1183
Molding Shrinkage	0.10 - 0.30	%	DIN 16901
Water Absorption (23°C, 24 hr)	< 0.10	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	35000	MPa	ISO 527-2
Tensile Stress (Break)	325	MPa	ISO 527-2
Tensile Strain (Yield)	1.6	%	ISO 527-2
Flexural Modulus	30000	MPa	ISO 178
Flexural Stress	460	MPa	ISO 178
Flexural Strain at Flexural Strength	2.0	%	ISO 178
Maximum operating temperature-Short Term	300	°C	
Insulation Resistance		ohms	IEC 60167
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength (23°C)	9.0	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength			
-30°C	63	kJ/m²	ISO 179/1fU
23°C	66	kJ/m²	ISO 179/1eU
Thermal	**Nominal Value**	**Unit**	**Test Method**

Heat Deflection Temperature (1.8 MPa, Unannealed)	330	°C	ISO 75-2/A
Continuous Use Temperature	260	°C	UL 746B
CLTE - Flow	1.4E-5	cm/cm/°C	DIN 53752
Thermal Conductivity [1]	1.0	W/m/K	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	< 1.0E+6	ohms	IEC 60093
Injection	**Nominal Value**	**Unit**	
Drying Temperature			
Dehumidification desiccant, B	150	°C	
Hot air dryer, A	140	°C	
Drying Time			
Dehumidification desiccant, B	4.0 - 8.0	hr	
Hot air dryer, A	4.0 - 16	hr	
Suggested Max Moisture	0.050	%	
Rear Temperature	370 - 390	°C	
Middle Temperature	380 - 420	°C	
Front Temperature	390 - 420	°C	
Nozzle Temperature	390 - 420	°C	
Processing (Melt) Temp	390	°C	
Mold Temperature	180 - 220	°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.	Hot-Disk, 60x60x3 mm

Recommended distributors for this material

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