# LUVOCOM® 50/CF/10/TF/15/BK 100

## Polycarbonate

Lehmann & Voss & Co.

### Message:

LUVOCOM® 50/CF/10/TF/15/BK 100 is a polycarbonate (PC) material, and the filler is 10% 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 features of 50/CF/10/TF/15/BK 100 are:

flame retardant/rated flame

Conductivity

High stiffness

high strength

Electrostatic protection

Typical application areas include:

engineering/industrial accessories

business/office supplies

Sporting goods

medical/health care

General Information

Filler / Reinforcement	Carbon fiber reinforced material, 10% filler by weight				
Additive	PTFE lubricant (15%)				
Features	Good dimensional stability				
	Conductivity				
	Low friction coefficient				
	Rigidity, high				
	High strength				
	Electrostatic discharge protection				
	Good wear resistance				
	Lubrication				
Uses	Gear				
	Engineering accessories				
	Business equipment				
	Sporting goods				
	Medical/nursing supplies				
Appearance	Black				
Physical	Nominal Value	Unit	Test Method		
Density	1.34	g/cm³	ISO 1183		
Melt Mass-Flow Rate (MFR)	15 - 20	g/10 min	ISO 1133		
Molding Shrinkage	0.20 - 0.40	%	DIN 16901		
Water Absorption (23°C, 24 hr)	< 0.20	%			
Mechanical	Nominal Value	Unit	Test Method		
Tensile Modulus	7500	MPa	ISO 527-2		

Tensile Stress (Break)	100	MPa	ISO 527-2
Tensile Strain (Yield)	2.5	%	ISO 527-2
Flexural Modulus	6500	MPa	ISO 178
Flexural Stress	150	MPa	ISO 178
Coefficient of Friction			
Dynamic	0.18		
Static	0.17		
Flexural Strain at Flexural Strength	3.0	%	ISO 178
Maximum operating temperature-Short Term	150	°C	
Insulation Resistance		ohms	IEC 60167
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	9.0	kJ/m²	ISO 179/1eA
23°C	12	kJ/m²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1fU
-30°C	25	kJ/m²	ISO 179/1fU
23°C	30	kJ/m²	ISO 179/1fU
Thermal	Nominal Value	Unit	Test Method
Continuous Use Temperature	130	°C	UL 746B
Vicat Softening Temperature	160	°C	ISO 306/A
CLTE - Flow	3.5E-5	cm/cm/°C	DIN 53752
Thermal Conductivity	0.40	W/m/K	DIN 52612
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	< 1.0E+5	ohms	IEC 60093
Flammability	Nominal Value	Unit	Test Method
Flame Rating			
	V-0		UL 94
Injection	V-0 Nominal Value	Unit	UL 94
		Unit °C	UL 94
Drying Temperature	Nominal Value		UL 94
Drying Temperature Drying Time	Nominal Value 120	°C	UL 94
Drying Temperature Drying Time Suggested Max Moisture	Nominal Value 120 4.0 - 6.0	°C hr	UL 94
Drying Temperature Drying Time Suggested Max Moisture Rear Temperature	Nominal Value  120  4.0 - 6.0  0.020	°C hr %	UL 94
Injection  Drying Temperature  Drying Time  Suggested Max Moisture  Rear Temperature  Middle Temperature  Front Temperature	Nominal Value  120  4.0 - 6.0  0.020  280 - 300	°C hr % °C	UL 94
Drying Temperature  Drying Time  Suggested Max Moisture  Rear Temperature  Middle Temperature	Nominal Value  120  4.0 - 6.0  0.020  280 - 300  290 - 310	°C hr % °C °C	UL 94
Drying Temperature  Drying Time  Suggested Max Moisture  Rear Temperature  Middle Temperature  Front Temperature	Nominal Value  120  4.0 - 6.0  0.020  280 - 300  290 - 310  300 - 320	°C  °C  °C	UL 94
Drying Temperature  Drying Time  Suggested Max Moisture  Rear Temperature  Middle Temperature  Front Temperature  Nozzle Temperature	Nominal Value  120  4.0 - 6.0  0.020  280 - 300  290 - 310  300 - 320  290 - 310	°C hr % °C °C °C °C	UL 94

#### 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 level should not exceed 0.02%, otherwise molecular degradation may occur.

Suitable heat treatment may increase resistance to the formation of stress cracks.

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.

Please contact us for further information.

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### Recommended distributors for this material

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