

# LUVOCOM® 50/CF/10/GF/10/TF/10/BK

Polycarbonate

Lehmann & Voss & Co.

## Message:

LUVOCOM® 50/CF/10/GF/10/TF/10/BK is a polycarbonate (PC) material, which contains fillers of 10% glass fiber reinforced materials and 10% carbon fiber reinforced materials. This product is available in North America, Africa and the Middle East, Latin America, Europe or Asia Pacific.

LUVOCOM® The main characteristics of 50/CF/10/GF/10/TF/10/BK 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			
UL YellowCard	E108976-218780		
Filler / Reinforcement	Glass fiber reinforced material, 10% filler by weight		
	Carbon fiber reinforced material, 10% filler by weight		
Additive	PTFE lubricant (10%)		
Features	Good dimensional stability		
	Conductivity		
	Low friction coefficient		
	Rigidity, high		
	High strength		
	Electrostatic discharge protection		
	Good wear resistance		
Uses	Lubrication		
	Gear		
	Engineering accessories		
	Business equipment		
	Sporting goods		
Appearance	Medical/nursing supplies		
	Black		
Physical	Nominal Value	Unit	Test Method
Density	1.38	g/cm <sup>3</sup>	ISO 1183
Melt Volume-Flow Rate (MVR) (300°C/5.0 kg)	25.0	cm <sup>3</sup> /10min	ISO 1133

Molding Shrinkage	0.20 - 0.40	%	DIN 16901
Water Absorption (23°C, 24 hr)	< 0.20	%	
<b>Mechanical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Tensile Modulus	9000	MPa	ISO 527-2
Tensile Stress (Break)	120	MPa	ISO 527-2
Tensile Strain (Yield)	2.5	%	ISO 527-2
Flexural Modulus	8000	MPa	ISO 178
Flexural Stress	165	MPa	ISO 178
Coefficient of Friction			
Dynamic	0.25		
Static	0.20		
Flexural Strain at Flexural Strength	3.0	%	ISO 178
Maximum operating temperature-Short Term	150	°C	
Insulation Resistance		ohms	IEC 60167
<b>Impact</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	10	kJ/m <sup>2</sup>	ISO 179/1eA
23°C	13	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1fU
-30°C	35	kJ/m <sup>2</sup>	ISO 179/1fU
23°C	40	kJ/m <sup>2</sup>	ISO 179/1fU
<b>Thermal</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Heat Deflection Temperature (1.8 MPa, Unannealed)	152	°C	ISO 75-2/A
Continuous Use Temperature	130	°C	UL 746B
Vicat Softening Temperature	160	°C	ISO 306/A
CLTE - Flow	2.5E-5	cm/cm/°C	DIN 53752
Thermal Conductivity	0.42	W/m/K	DIN 52612
<b>Electrical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Surface Resistivity	< 1.0E+4	ohms	IEC 60093
<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Flame Rating	V-1		UL 94
<b>Injection</b>	<b>Nominal Value</b>	<b>Unit</b>	
Drying Temperature	120	°C	
Drying Time	4.0 - 6.0	hr	
Suggested Max Moisture	0.020	%	
Rear Temperature	280 - 300	°C	
Middle Temperature	290 - 310	°C	
Front Temperature	300 - 320	°C	
Nozzle Temperature	290 - 310	°C	
Processing (Melt) Temp	295	°C	
Mold Temperature	80.0 - 120	°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 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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