

# LUVOCOM® 1/CF/20/TF/5

Polyamide 66  
Lehmann & Voss & Co.

Message:

LUVOCOM® 1/CF/20/TF/5 is a polyamide 66 (nylon 66) material, which contains a 20% 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 1/CF/20/TF/5 are:

Conductivity  
High stiffness  
high strength  
Electrostatic protection  
anti-warping  
Typical application areas include:  
engineering/industrial accessories  
textile/fiber  
Automotive Industry  
business/office supplies

General Information			
Filler / Reinforcement	Carbon fiber reinforced material, 20% filler by weight		
Additive	PTFE lubricant (5%)  heat stabilizer		
Features	Good dimensional stability  Conductivity  Low friction coefficient  Low warpage  Rigidity, high  High strength  Electrostatic discharge protection  Good wear resistance  Thermal Stability  Lubrication		
Uses	Gear  Textile applications  Engineering accessories  Application in Automobile Field  Business equipment  Cam		
Appearance	Natural color		
Physical	Nominal Value	Unit	Test Method
Density	1.26	g/cm³	ISO 1183

Molding Shrinkage	0.20 - 0.50	%	DIN 16901
Water Absorption (23°C, 24 hr)	< 1.0	%	
<b>Mechanical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Tensile Modulus	13000	MPa	ISO 527-2
Tensile Stress (Break)	210	MPa	ISO 527-2
Tensile Strain (Yield)	3.0	%	ISO 527-2
Flexural Modulus	11000	MPa	ISO 178
Flexural Stress	300	MPa	ISO 178
Coefficient of Friction			
Dynamic	0.18		
Static	0.15		
Flexural Strain at Flexural Strength	4.0	%	ISO 178
Maximum operating temperature-Short Term	160	°C	
Insulation Resistance	1.0E+5	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	6.0	kJ/m <sup>2</sup>	ISO 179/1eA
23°C	11	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1fU
-30°C	30	kJ/m <sup>2</sup>	ISO 179/1fU
23°C	35	kJ/m <sup>2</sup>	ISO 179/1fU
<b>Thermal</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Continuous Use Temperature	120	°C	UL 746B
CLTE - Flow	1.8E-5	cm/cm/°C	DIN 53752
Thermal Conductivity	0.43	W/m/K	DIN 52612
<b>Electrical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Surface Resistivity	1.0E+3	ohms	IEC 60093
<b>Injection</b>	<b>Nominal Value</b>	<b>Unit</b>	
Drying Temperature			
Hot air dryer, A	75.0	°C	
Vacuum dryer, B	105	°C	
Drying Time			
Hot air dryer, A	6.0 - 16	hr	
Vacuum dryer, B	4.0 - 6.0	hr	
Suggested Max Moisture	0.10	%	
Rear Temperature	290 - 310	°C	
Middle Temperature	290 - 310	°C	
Front Temperature	290 - 310	°C	
Nozzle Temperature	280 - 300	°C	
Processing (Melt) Temp	290	°C	
Mold Temperature	90.0 - 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 0.1%, otherwise molecular degradation and surface defects (e.g. smearing) may occur. Due to rapid absorption of water, originally sealed containers should only be opened immediately prior to processing. Excessively high predrying temperatures may cause discoloration.

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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