

# LUVOCOM® 3/CF/12/EG

Polyamide 6  
Lehmann & Voss & Co.

Message:

LUVOCOM® 3/CF/12/EG is a polyamide 6 (nylon 6) material, which contains a 12% carbon fiber reinforced material. This product is available in Europe, and the processing method is: profile extrusion molding.

LUVOCOM®The main features of 3/CF/12/EG are:

Conductivity  
High stiffness  
high strength  
high viscosity  
Electrostatic protection  
Typical application areas include:  
engineering/industrial accessories  
textile/fiber  
Automotive Industry  
Handle

General Information			
Filler / Reinforcement	Carbon fiber reinforced material, 12% filler by weight		
Features	Conductivity		
	Rigidity, high		
	High strength		
	Electrostatic discharge protection		
	Good wear resistance		
	Viscosity, High		
Uses	Handle		
	Textile applications		
	Engineering accessories		
	Roller		
	Application in Automobile Field		
	Profile		
Appearance	Natural color		
Processing Method	Profile extrusion molding		
Physical	Nominal Value	Unit	Test Method
Density	1.18	g/cm³	ISO 1183
Molding Shrinkage	0.30 - 0.70	%	DIN 16901
Water Absorption (23°C, 24 hr)	< 1.3	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	7500	MPa	ISO 527-2
Tensile Stress (Break)	140	MPa	ISO 527-2
Tensile Strain (Yield)	3.0	%	ISO 527-2

Flexural Modulus	7000	MPa	ISO 178
Flexural Stress	210	MPa	ISO 178
Coefficient of Friction			
Dynamic	0.24		
Static	0.20		
Flexural Strain at Flexural Strength	4.5	%	ISO 178
Maximum operating temperature-Short Term	130	°C	
Insulation Resistance		ohms	IEC 60167
Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength			ISO 179/1fU
-30°C	45	kJ/m <sup>2</sup>	ISO 179/1fU
23°C	55	kJ/m <sup>2</sup>	ISO 179/1fU
Thermal	Nominal Value	Unit	Test Method
Continuous Use Temperature	90.0	°C	UL 746B
Vicat Softening Temperature	210	°C	ISO 306/A
CLTE - Flow	4.0E-5	cm/cm/°C	DIN 53752
Thermal Conductivity	0.33	W/m/K	DIN 52612
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	< 1.0E+5	ohms	IEC 60093
Injection	Nominal Value	Unit	
Drying Temperature			
A	75.0	°C	
B	105	°C	
Drying Time			
A	10 - 16	hr	
B	4.0 - 6.0	hr	
Suggested Max Moisture	0.10	%	
Rear Temperature	250 - 270	°C	
Middle Temperature	270 - 290	°C	
Front Temperature	280 - 300	°C	
Nozzle Temperature	270 - 280	°C	
Processing (Melt) Temp	270	°C	
Mold Temperature	70.0 - 110	°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. As the material absorbs water rapidly, originally sealed containers should only be opened immediately before 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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