

# LUVOCOM® 1800-8449

Polyethylene Terephthalate

Lehmann & Voss & Co.

## Message:

LUVOCOM® 1800-8449 is a polyethylene terephthalate (PET) 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 features of 1800-8449 are:

Conductivity

High stiffness

high strength

Electrostatic protection

Creep resistance

Typical application areas include:

engineering/industrial accessories

textile/fiber

Automotive Industry

business/office supplies

General Information			
Filler / Reinforcement	Carbon fiber reinforced material		
Features	Conductivity		
	Rigidity, high		
	High strength		
	Electrostatic discharge protection		
	Good creep resistance		
	Good wear resistance		
Uses	Gear		
	Textile applications		
	Engineering accessories		
	Application in Automobile Field		
	Business equipment		
	Cam		
	Bearing		
Appearance	Natural color		
Physical	Nominal Value	Unit	Test Method
Density	1.44	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage	0.10 - 0.40	%	DIN 16901
Water Absorption (23°C, 24 hr)	< 0.30	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	24000	MPa	ISO 527-2
Tensile Stress (Break)	200	MPa	ISO 527-2
Tensile Strain (Yield)	1.8	%	ISO 527-2

Flexural Modulus	20000	MPa	ISO 178
Flexural Stress	290	MPa	ISO 178
Flexural Strain at Flexural Strength	2.3	%	ISO 178
Maximum operating temperature-Short Term	180	°C	
Insulation Resistance		ohms	IEC 60167
Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength (23°C)	60	kJ/m <sup>2</sup>	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	235	°C	ISO 75-2/A
Continuous Use Temperature	110	°C	UL 746B
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	< 1.0E+2	ohms	IEC 60093
Injection	Nominal Value	Unit	
Drying Temperature			
B	80.0	°C	
Hot air dryer, A	120	°C	
Drying Time			
B	6.0 - 8.0	hr	
Hot air dryer, A	2.0 - 5.0	hr	
Suggested Max Moisture	0.020	%	
Rear Temperature	285 - 295	°C	
Middle Temperature	270 - 280	°C	
Front Temperature	265 - 275	°C	
Nozzle Temperature	265 - 275	°C	
Processing (Melt) Temp	280	°C	
Mold Temperature	60.0 - 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 and surface defects (e.g. smearing) may occur. As the material absorbs water very quickly, the predried material should be fed to the processing immediately. Processing temperatures above 300°C may very rapidly cause thermal damage and should therefore be avoided.

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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