# LUVOCOM® 1850/CF/10/GF/10/BK

# Polybutylene Terephthalate

### **LEHVOSS Group**

#### Message:

LUVOCOM® 1850/CF/10/GF/10/BK is a polybutene terephthalate (PBT) 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 1850/CF/10/GF/10/BK are:

chemical resistance

Conductivity

Good stiffness

Impact resistance

Typical application areas include:

textile/fiber

engineering/industrial accessories

Automotive Industry

business/office supplies

General Information				
Filler / Reinforcement	Glass fiber reinforced material, 10% filler by weight			
	Carbon fiber reinforced material, 10% filler by weight			
Features	Conductivity			
	Rigid, good			
	Static conduction			
	Solvent resistance			
	Impact resistance, good			
	Good strength			
	alkali resistance			
	acid resistance			
	Hydrocarbon resistance			
	Oil resistance			
	Grease resistance			
Uses	Textile applications			
	Engineering accessories			
	Application in Automobile Field			
	Business equipment			
Appearance	Black			
Physical	Nominal Value	Unit	Test Method	
Density	1.40	g/cm³	ISO 1183	
Melt Mass-Flow Rate (MFR) (250°C/2.16 kg)	18	g/10 min	ISO 1133	
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Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)	15.0	cm³/10min	ISO 1133
Molding Shrinkage	0.30 - 0.80	%	DIN 16901
Water Absorption (23°C, 24 hr)	< 0.10	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	9600	MPa	ISO 527-2
Tensile Stress (Break)	139	MPa	ISO 527-2
Tensile Strain (Yield)	2.9	%	ISO 527-2
Flexural Modulus	8000	MPa	ISO 178
Flexural Stress	195	MPa	ISO 178
Flexural Strain at Flexural Strength	3.5	%	ISO 178
Maximum operating temperature-Short			
Term	160	°C	
Insulation Resistance		ohms	IEC 60167
Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength (23°C)	44	kJ/m²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Continuous Use Temperature	130	°C	UL 746B
Vicat Softening Temperature	215	°C	ISO 306/A
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	< 1.0E+5	ohms	IEC 60093
Injection	Nominal Value	Unit	
Drying Temperature			
Hot air dryer, A	120	°C	
Vacuum dryer, B	80	°C	
Drying Time			
Hot air dryer, A	4.0 - 6.0	hr	
Vacuum dryer, B	6.0 - 8.0	hr	
Rear Temperature	240 - 260	°C	
Middle Temperature	260 - 280	°C	
Front Temperature	250 - 270	°C	
Nozzle Temperature	250 - 265	°C	
Processing (Melt) Temp	250	°C	
Mold Temperature	60 - 120	°C	

#### 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 270°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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#### Recommended distributors for this material

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