

# LUVOCOM® 1850/GF/30/TF/15/BK

Polybutylene Terephthalate

Lehmann & Voss & Co.

## Message:

LUVOCOM® 1850/GF/30/TF/15/BK is a polybutene terephthalate (PBT) material, and the filler is 30% glass fiber reinforced material. This product is available in North America, Africa and the Middle East, Latin America, Europe or Asia Pacific.

LUVOCOM® The main characteristics of 1850/GF/30/TF/15/BK are:

Good dimensional stability

Wear-resistant

Lubrication

Typical application areas include:

Electrical/electronic applications

Reflector

textile/fiber

engineering/industrial accessories

Automotive Industry

General Information			
Filler / Reinforcement	Glass fiber reinforced material, 30% filler by weight		
Additive	PTFE lubricant (15%)		
Features	Good dimensional stability		
	Low friction coefficient		
	Good wear resistance		
	Lubrication		
Uses	Electrical/Electronic Applications		
	Reflector		
	Textile applications		
	Engineering accessories		
	Switch		
	Application in Automobile Field		
	Business equipment		
	spool		
Appearance	Black		
Physical	Nominal Value	Unit	Test Method
Density	1.65	g/cm³	ISO 1183
Molding Shrinkage	0.20 - 0.50	%	DIN 16901
Water Absorption (23°C, 24 hr)	< 0.10	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	10000	MPa	ISO 527-2
Tensile Stress (Break)	130	MPa	ISO 527-2
Tensile Strain (Yield)	2.7	%	ISO 527-2
Flexural Modulus	9500	MPa	ISO 178

Flexural Stress	180	MPa	ISO 178
Coefficient of Friction			
Dynamic	0.20		
Static	0.15		
Flexural Strain at Flexural Strength	3.5	%	ISO 178
Maximum operating temperature-Short Term	180	°C	
Insulation Resistance	> 1.0E+12	ohms	IEC 60167
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	12	kJ/m <sup>2</sup>	ISO 179/1eA
23°C	12	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy Unnotched Impact Strength			
-30°C	57	kJ/m <sup>2</sup>	ISO 179/1fU
23°C	50	kJ/m <sup>2</sup>	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	210	°C	ISO 75-2/A
Continuous Use Temperature	130	°C	UL 746B
Vicat Softening Temperature	210	°C	ISO 306/A
CLTE - Flow	2.3E-5	cm/cm/°C	DIN 53752
Thermal Conductivity	0.40	W/m/K	DIN 52612
Injection	Nominal Value	Unit	
Drying Temperature			
A	120	°C	
Vacuum dryer, B	80.0	°C	
Drying Time			
A	4.0 - 6.0	hr	
Vacuum dryer, B	6.0 - 8.0	hr	
Suggested Max Moisture	0.020	%	
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	60.0 - 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 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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