

LUVOCOM® 1850/CF/10/GF/10/GK/10/GS/5/FR

LEHOSS Group - Polybutylene Terephthalate

General Information
Product Description

with carbon fibers, glass fibers, glass shperes and glass flakes, fire protection; natural color (black)

Main Features

- Low warpage, isotropic shrinkage characteristics.
- High dimensionally stable precision parts, even at elevated temperatures and narrow tolerance range.
- Electrically conductive, suitable for continuous discharging of statically-generated electricity.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Filler / Reinforcement	• Carbon Fiber	• Glass Fiber	
	• Glass Bead	• Glass Flake	
Additive	• Flame Retardant		
Features	• Electrically Conductive	• High Dimensional Stability	• Low Warpage
	• Flame Retardant	• High Heat Resistance	
Appearance	• Black		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.50	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (250°C/10.0 kg)	14	cm ³ /10min	ISO 1133
Water Absorption (24 hr, 73°F)	< 0.10	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.45E+6	psi	ISO 527-1/1
Tensile Stress	16000	psi	ISO 527-2
Tensile Strain (Yield)	2.5	%	ISO 527-2/50
Flexural Modulus ²	1.38E+6	psi	ISO 178
Flexural Stress ³	22500	psi	ISO 178
Flexural Strain - (Yield) ⁴	3.5	%	ISO 178
Thermal	Nominal Value	Unit	Test Method
Continuous Use Temperature ⁵	266	°F	IEC 60216
Vicat Softening Temperature	419	°F	ISO 306/A
Service Temperature - during lifetime max. 200 hr	320	°F	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	< 1.0E+3	ohms	IEC 62631-3-2
Insulation Resistance ⁶	< 1.0E+4	ohms	IEC 62631-3-3
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	V-0		Internal Method

Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
--		176 °F
Desiccant Dryer, A		248 °F
Drying Time		
--		6.0 to 8.0 hr
Desiccant Dryer, A		4.0 to 6.0 hr
Rear Temperature		64 to 500 °F



Middle Temperature	500 to 536 °F
Front Temperature	482 to 518 °F
Nozzle Temperature	482 to 509 °F
Processing (Melt) Temp	482 °F
Mold Temperature	140 to 248 °F

Injection Notes

During processing, the moisture level should not exceed 0.01%, otherwise molecular degradation may occur. As the material absorbs water very quickly, the predried material should be fed to the processing immediately. 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.

Notes

¹ Typical properties: these are not to be construed as specifications.

² 0.079 in/min

³ 0.39 in/min

⁴ 10 mm/min

⁵ 20,000 hr

⁶ strip electrode R25

