

LUVOCOM® 1100-8549

LEHOSS Group - Polyethersulfone

General Information
Product Description

with carbon fibers, PTFE lubricant modified; natural color (black)

Main Features

- High dimensionally stable precision parts.
- Strong, stiff parts; low thermal coefficient of expansion.
- Improved friction and wear behaviour. Optimised for dry running operations.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Carbon Fiber		
Additive	• PTFE Lubricant		
Features	• High Dimensional Stability • High Stiffness • High Strength	• Low CLTE • Low Friction • Lubricated	• Wear Resistant
Appearance	• Black		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.70	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (345°C/5.0 kg)	4.0	cm ³ /10min	ISO 1133
Molding Shrinkage			DIN 16742
Across Flow	0.20 to 0.40	%	
Flow	0.10 to 0.30	%	
Water Absorption (24 hr, 73°F)	< 0.10	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.89E+6	psi	ISO 527-1/1
Tensile Stress	12600	psi	ISO 527-2
Tensile Strain (Yield)	1.1	%	ISO 527-2/50
Flexural Modulus ²	1.60E+6	psi	ISO 178
Flexural Stress ³	18000	psi	ISO 178
Flexural Strain - (Yield) ⁴	1.4	%	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	2.4	ft-lb/in ²	ISO 179/1eA
Charpy Unnotched Impact Strength	7.1	ft-lb/in ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	428	°F	ISO 75-2/A
Continuous Use Temperature ⁵	356	°F	IEC 60216
CLTE - Flow	7.2E-6	in/in/°F	ISO 11359-2
Service Temperature - during lifetime max. 200 hr	392	°F	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	< 1.0E+5	ohms	IEC 62631-3-2
Insulation Resistance ⁶	< 1.0E+5	ohms	IEC 62631-3-3

Processing Information

Injection	Nominal Value	Unit
Drying Temperature - Desiccant Dryer, A	302	°F
Drying Time - Desiccant Dryer, A	3.0 to 5.0	hr



Rear Temperature	671 to 707 °F
Middle Temperature	680 to 716 °F
Front Temperature	662 to 698 °F
Nozzle Temperature	644 to 680 °F
Processing (Melt) Temp	662 °F
Mold Temperature	248 to 392 °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

