

LUVOCOM® 50/GF/10/TF/18/SI/2/GY5

LEHVOSS Group - Polycarbonate

General Information

Product Description

with glass fibers, PTFE lubricant modified; telegrey 4

Main Features

- Very strong and stiff parts; low coefficient of thermal expansion.
- Reduced moment of inertia compared with metal parts.
- Improved friction and wear behaviour. Optimised for dry running operations.
- High dimensionally stable precision parts, even at elevated temperatures and narrow tolerance range.

General

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

 Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.40	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	< 10	cm ³ /10min	ISO 1133
Water Absorption (24 hr, 73°F)	< 0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	580000	psi	ISO 527-1/1
Tensile Stress	10200	psi	ISO 527-2
Tensile Strain (Yield)	4.0	%	ISO 527-2/50
Flexural Modulus ²	508000	psi	ISO 178
Flexural Stress ³	14500	psi	ISO 178
Flexural Strain - (Yield) ⁴	4.5	%	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
--	12	ft·lb/in ²	
-22°F	9.5	ft·lb/in ²	
Thermal	Nominal Value	Unit	Test Method
Continuous Use Temperature ⁵	266	°F	IEC 60216
Vicat Softening Temperature	320	°F	ISO 306/A
CLTE - Flow	2.8E-5	in/in/°F	ISO 11359-2
Service Temperature - during lifetime max. 200 hr	302	°F	
Electrical	Nominal Value	Unit	Test Method
Insulation Resistance ⁶	> 1.0E+12	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 - Desiccant Dryer, A	248	°F
Drying Time - Desiccant Dryer, A	4.0 to 6.0	hr



Rear Temperature	536 to 572 °F
Middle Temperature	554 to 590 °F
Front Temperature	572 to 608 °F
Nozzle Temperature	554 to 590 °F
Processing (Melt) Temp	563 °F
Mold Temperature	176 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

