LUVOCOM® 50-1396

LEHVOSS Group - *Polycarbonate*

General Information

Product Description

with carbon fiber, glass fiber and PTFE, electrically conducting; black

Main Features

- Very strong and stiff parts; low coefficient of thermal expansion.
- Electrically conductive, suitable for continuous discharging of statically-generated electricity.
- 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 • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Carbon Fiber	• Glass Fiber	
Additive	• PTFE Lubricant		
Features	• Electrically Conductive • High Dimensional Stability • High Heat Resistance	• High Stiffness • High Strength • Low CLTE	• Low Friction • Lubricated • Wear Resistant
Appearance	• Black		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.36	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (300°C/5.0 kg)	22	cm³/10min	ISO 1133
Water Absorption (24 hr, 73°F)	< 0.20	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	1.45E+6	psi	ISO 527-1/1
Tensile Stress	17400	psi	ISO 527-2
Tensile Strain (Yield)	2.0	%	ISO 527-2/50
Flexural Modulus [2]	1.23E+6	psi	ISO 178
Flexural Stress [3]	26800	psi	ISO 178
Flexural Strain - (Yield) [4]	2.5	%	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
--	5.7	ft·lb/in²	
-22°F	4.3	ft·lb/in²	
Thermal	**Nominal Value**	**Unit**	**Test Method**
Continuous Use Temperature [5]	266	°F	IEC 60216
Vicat Softening Temperature	320	°F	ISO 306/A
CLTE - Flow	1.4E-5	in/in/°F	ISO 11359-2
Service Temperature - during lifetime max. 200 hr	302	°F	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	< 1.0E+2	ohms	IEC 62631-3-2
Insulation Resistance [6]	< 1.0E+3	ohms	IEC 62631-3-3

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