LUVOCOM® 1105-0699-2

LEHVOSS Group - *Polyetheretherketone*

General Information

Product Description

with carbon fibers, PTFE lubricant modified; black

Main Features

- Very strong and stiff parts; low coefficient of thermal expansion.
- Improved friction and wear behaviour. Optimised for dry running operations.
- Electrically conductive, suitable for continuous discharging of statically-generated electricity.
- High dimensionally stable precision parts with low warpage and narrow tolerance range.

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

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.49	g/cm³	ISO 1183
Water Absorption (24 hr, 73°F)	< 0.10	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	4.21E+6	psi	ISO 527-1/1
Tensile Stress	30000	psi	ISO 527-2
Tensile Strain (Yield)	1.0	%	ISO 527-2/50
Flexural Modulus [2]	3.48E+6	psi	ISO 178
Flexural Stress [3]	44100	psi	ISO 178
Flexural Strain - (Yield) [4]	1.4	%	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
--	3.8	ft·lb/in²	
-22°F	3.8	ft·lb/in²	
Charpy Unnotched Impact Strength			ISO 179/1eU
--	16	ft·lb/in²	
-22°F	12	ft·lb/in²	
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (264 psi, Unannealed)	491	°F	ISO 75-2/A
Continuous Use Temperature [5]	482	°F	IEC 60216
Vicat Softening Temperature	590	°F	ISO 306/A
CLTE - Flow	5.0E-6	in/in/°F	ISO 11359-2
Service Temperature - during lifetime max. 200 hr	536	°F	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	< 1.0E+4	ohms	IEC 62631-3-2
Insulation Resistance [6]	< 1.0E+5	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	302	°F
Desiccant Dryer, B	248	°F
Drying Time		
Desiccant Dryer, A	3.0 to 6.0	hr
Desiccant Dryer, B	6.0 to 8.0	hr
Rear Temperature	680 to 698	°F
Middle Temperature	716 to 734	°F
Front Temperature	734 to 752	°F
Nozzle Temperature	680 to 716	°F
Processing (Melt) Temp	734	°F
Mold Temperature	338 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