LUVOCOM® 20-0659

LEHVOSS Group - *Polyphthalamide*

General Information

Product Description

with carbon fibers; natural color (black)

Main Features

- Very strong and stiff parts; low coefficient of thermal expansion.
- Low influence from moisture and temperature on dimensional stability and electrical properties, compared with PA66.
- Suitable for metal inserts.
- 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		
Features	• Good Dimensional Stability • Good Electrical Properties • Good Heat Resistance	• High Stiffness • High Strength • Low CLTE	• Low Friction • Low Moisture Absorption • Wear Resistant
Appearance	• Black		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.32	g/cm³	ISO 1183
Water Absorption (24 hr, 73°F)	< 0.30	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	3.63E+6	psi	ISO 527-1/1
Tensile Stress	39900	psi	ISO 527-2
Tensile Strain (Yield)	2.0	%	ISO 527-2/50
Flexural Modulus [2]	3.34E+6	psi	ISO 178
Flexural Stress [3]	52200	psi	ISO 178
Flexural Strain - (Yield) [4]	2.0	%	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength	3.8	ft·lb/in²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
--	26	ft·lb/in²	
-22°F	24	ft·lb/in²	
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (264 psi, Unannealed)	527	°F	ISO 75-2/A
Continuous Use Temperature [5]	329	°F	IEC 60216
CLTE - Flow	7.2E-6	in/in/°F	ISO 11359-2
Service Temperature - during lifetime max. 200 hr	383	°F	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	< 1.0E+2	ohms	IEC 62631-3-2
Insulation Resistance [6]	< 1.0E+2	ohms	IEC 62631-3-3

Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer, A	176	°F
Vacuum Dryer, B	221	°F
Drying Time		

Desiccant Dryer, A	6.0 to 16 hr
Vacuum Dryer, B	4.0 to 5.0 hr
Rear Temperature	608 to 644 °F
Middle Temperature	608 to 653 °F
Front Temperature	617 to 662 °F
Nozzle Temperature	608 to 626 °F
Mold Temperature	275 to 320 °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