

LUVOCOM® 3/CF/12/EG

LEHVOSS Group - Polyamide 6

General Information
Product Description

with carbon fibers, high viscosity; natural color (black)

Main Features

- Very strong and stiff parts; low coefficient of thermal expansion.
- Dynamic-stress and wear-resistant parts.
- Electrically conductive, suitable for continuous discharging of statically-generated electricity.

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Filler / Reinforcement	• Carbon Fiber
Features	• Electrically Conductive • High Strength • Low CLTE • High Stiffness • High Viscosity • Wear Resistant
Appearance	• Black

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.18	g/cm ³	ISO 1183
Water Absorption (24 hr, 73°F)	< 1.3	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.09E+6	psi	ISO 527-1/1
Tensile Stress	20300	psi	ISO 527-2
Tensile Strain (Yield)	3.0	%	ISO 527-2/50
Flexural Modulus ²	1.02E+6	psi	ISO 178
Flexural Stress ³	30500	psi	ISO 178
Flexural Strain - (Yield) ⁴	4.5	%	ISO 178
Thermal	Nominal Value	Unit	Test Method
Continuous Use Temperature ⁵	194	°F	IEC 60216
Vicat Softening Temperature	410	°F	ISO 306/A
CLTE - Flow	2.2E-5	in/in/°F	ISO 11359-2
Service Temperature - during lifetime max. 200 hr	266	°F	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	< 1.0E+5	ohms	IEC 62631-3-2
Insulation Resistance ⁶	< 1.0E+6	ohms	IEC 62631-3-3

Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer, A	167	°F
Desiccant Dryer, B	221	°F
Drying Time		
Desiccant Dryer, A	10 to 16	hr
Desiccant Dryer, B	4.0 to 6.0	hr
Rear Temperature	482 to 518	°F
Middle Temperature	518 to 554	°F
Front Temperature	536 to 572	°F
Nozzle Temperature	518 to 536	°F



Processing (Melt) Temp	518 °F
Mold Temperature	158 to 230 °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

