

LUVOCOM® 19/XCF/20

LEHVOSS Group - Polyamide 46

General Information

Product Description

with carbon fibers; black

Main Features

- Very strong and stiff parts; low coefficient of thermal expansion.
- Reduced moment of inertia compared with metal parts.
- Electrically conductive, suitable for continuous discharging of statically-generated electricity.

General

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

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.27	g/cm ³	ISO 1183
Water Absorption (24 hr, 73°F)	< 1.0	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2.76E+6	psi	ISO 527-1/1
Tensile Stress	39200	psi	ISO 527-2
Tensile Strain (Yield)	2.2	%	ISO 527-2/50
Flexural Modulus ²	2.32E+6	psi	ISO 178
Flexural Stress ³	55800	psi	ISO 178
Flexural Strain - (Yield) ⁴	2.9	%	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	3.8	ft·lb/in ²	ISO 179/1eA
Charpy Unnotched Impact Strength	33	ft·lb/in ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Continuous Use Temperature ⁵	302	°F	IEC 60216
Service Temperature - during lifetime max. 200 hr	338	°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	176	°F
Drying Time		
Desiccant Dryer, A	2.0 to 8.0	hr
Vacuum Dryer, B	2.0 to 12	hr
Rear Temperature	545 to 590	°F
Middle Temperature	545 to 599	°F
Front Temperature	572 to 608	°F



Nozzle Temperature	554 to 608 °F
Processing (Melt) Temp	590 °F
Mold Temperature	194 to 266 °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

