

LUVOCOM® 1105/XCF/40

LEHVOSS Group - Linear Polyphenylene Sulfide

General Information

Product Description

with carbon fibers; natural color (black)

Main Features

- Electrically conductive, suitable for continuous discharging of statically-generated electricity.
- Very strong and stiff parts; low coefficient of thermal expansion.
- Dynamically-stressed parts moving at high velocity.
- Chemically- and hydrolytically- resistant parts, non flammable.

General

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

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.45	g/cm ³	ISO 1183
Molding Shrinkage			DIN 16742
Across Flow	0.20 to 0.50	%	
Flow	0.10 to 0.20	%	
Water Absorption (24 hr, 73°F)	< 0.10	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	6.09E+6	psi	ISO 527-1/1
Tensile Stress	47100	psi	ISO 527-2
Tensile Strain (Yield)	1.2	%	ISO 527-2/50
Flexural Modulus ²	5.22E+6	psi	ISO 178
Flexural Stress ³	67400	psi	ISO 178
Flexural Strain - (Yield) ⁴	1.5	%	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength	26	ft·lb/in ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	626	°F	ISO 75-2/A
Continuous Use Temperature ⁵	482	°F	IEC 60216
Service Temperature - during lifetime max. 200 hr	572	°F	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	< 1.0E+3	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	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

