

LUVOCOM® 1105/GF/14

LEHOSS Group - Polyetheretherketone

General Information
Product Description

with glass fibers; natural color

Main Features

- Chemically- and hydrolytically- resistant parts, non flammable.
- Especially suitable for medical parts, superheated steam sterilizable, hydrolysis resistance.
- Strong, stiff parts.
- High dimensionally stable precision parts, high continuous use temperature.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber		
Features	• Chemical Resistant • High Dimensional Stability • High Heat Resistance	• High Stiffness • High Strength • Hydrolysis Resistant	• Hydrolytically Stable • Ignition Resistant • Steam Sterilizable
Uses	• Medical/Healthcare Applications		
Appearance	• Natural Color		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.39	g/cm ³	ISO 1183
Water Absorption (24 hr, 73°F)	< 0.10	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.02E+6	psi	ISO 527-1/1
Tensile Stress	19600	psi	ISO 527-2
Tensile Strain (Yield)	3.0	%	ISO 527-2/50
Flexural Modulus ²	943000	psi	ISO 178
Flexural Stress ³	30500	psi	ISO 178
Flexural Strain - (Yield) ⁴	3.9	%	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	3.3	ft·lb/in ²	ISO 179/1eA
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	527	°F	ISO 75-2/A
Continuous Use Temperature ⁵	482	°F	IEC 60216
Vicat Softening Temperature	608	°F	ISO 306/A
CLTE - Flow	1.7E-5	in/in/°F	ISO 11359-2
Service Temperature - during lifetime max. 200 hr	500	°F	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+13	ohms	IEC 62631-3-2
Insulation Resistance ⁶	> 1.0E+14	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

