

LUVOCOM® 1105/GF/30/NAT-2
 LEHOSS Group - *Polyetheretherketone*
General Information
Product Description

with glass fibers; natural color

Main Features

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

General

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

Properties ¹

	Nominal Value	Unit	Test Method
Physical			
Density	1.52	g/cm ³	ISO 1183
Water Absorption (24 hr, 73°F)	< 0.10	%	ISO 62
Mechanical			
Tensile Modulus	1.60E+6	psi	ISO 527-1/1
Tensile Stress	25400	psi	ISO 527-2
Tensile Strain (Yield)	2.2	%	ISO 527-2/50
Flexural Modulus ²	1.31E+6	psi	ISO 178
Flexural Stress ³	37700	psi	ISO 178
Flexural Strain - (Yield) ⁴	3.0	%	ISO 178
Impact			
Charpy Notched Impact Strength			ISO 179/1eA
--	3.8	ft-lb/in ²	
-22°F	3.3	ft-lb/in ²	
Thermal			
Deflection Temperature Under Load (264 psi, Unannealed)	599	°F	ISO 75-2/A
Continuous Use Temperature ⁵	482	°F	IEC 60216
Vicat Softening Temperature	617	°F	ISO 306/A
CLTE - Flow	1.2E-5	in/in/°F	ISO 11359-2
Service Temperature - during lifetime max. 200 hr	536	°F	
Electrical			
Surface Resistivity	> 1.0E+12	ohms	IEC 62631-3-2
Insulation Resistance ⁶	> 1.0E+12	ohms	IEC 62631-3-3
Flammability			
Flame Rating (0.06 in)	V-0		Internal Method

Processing Information

	Nominal Value	Unit
Injection		
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

