

LUVOCOM® 1105-7301

LEHOSS Group - Polyetheretherketone

General Information

Product Description

unreinforced, laser markable; black

Main Features

- Especially suitable for medical parts, superheated steam sterilizable, hydrolysis resistance.
- Low warpage, isotropic shrinkage characteristics.
- Highly chemically-resistant parts, non flammable.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Features	• Chemical Resistant	• Ignition Resistant	• Low Warpage
	• Hydrolysis Resistant	• Laser Markable	• Steam Sterilizable
Uses	• Medical/Healthcare Applications		
Appearance	• Black		

 Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.30	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (380°C/10.0 kg)	21	cm ³ /10min	ISO 1133
Molding Shrinkage			DIN 16742
Across Flow	1.5 to 1.8	%	
Flow	1.2 to 1.5	%	
Water Absorption (24 hr, 73°F)	< 0.50	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	508000	psi	ISO 527-1/1
Tensile Stress	13800	psi	ISO 527-2
Tensile Strain (Yield)	5.0	%	ISO 527-2/50
Flexural Modulus ²	435000	psi	ISO 178
Flexural Stress ³	20300	psi	ISO 178
Flexural Strain - (Yield) ⁴	6.0	%	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	17	ft·lb/in ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	306	°F	ISO 75-2/A
Continuous Use Temperature ⁵	482	°F	IEC 60216
Vicat Softening Temperature	572	°F	ISO 306/A
CLTE - Flow	2.6E-5	in/in/°F	ISO 11359-2
Service Temperature - during lifetime max. 200 hr	500	°F	
Electrical	Nominal Value	Unit	Test Method
Insulation Resistance ⁶	> 1.0E+12	ohms	IEC 62631-3-3
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.06 in)	• V-1		Internal Method
	• V-0		

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

