LUVOCOM® 1105-0858

LEHVOSS Group - *Polyetheretherketone*

General Information

Product Description

with glass fibers, easy flowing; black

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 • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber		
Features	• Chemical Resistant • Good Flow • High Dimensional Stability • High Heat Resistance	• High Stiffness • High Strength • Hydrolysis Resistant • Hydrolytically Stable	• Ignition Resistant • Steam Sterilizable
Uses	• Medical/Healthcare Applications		
Appearance	• Black		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.52	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (400°C/10.0 kg)	85	cm³/10min	ISO 1133
Water Absorption (24 hr, 73°F)	< 0.10	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	1.74E+6	psi	ISO 527-1/1
Tensile Stress	25400	psi	ISO 527-2
Tensile Strain (Yield)	1.9	%	ISO 527-2/50
Flexural Modulus [2]	1.31E+6	psi	ISO 178
Flexural Stress [3]	36300	psi	ISO 178
Flexural Strain - (Yield) [4]	3.0	%	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength	4.8	ft·lb/in²	ISO 179/1eA
Thermal	**Nominal Value**	**Unit**	**Test Method**
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	**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-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