

LUVOTECH® eco PEEK GF20 BK
 LEHVOSS Group - Polyetheretherketone

General Information
Product Description

with glass fibers; black

Main Features

- Especially suitable for medical parts, superheated steam sterilizable, hydrolysis resistance.
- Strong, stiff parts.
- 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	• Black		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.44	g/cm ³	ISO 1183
Water Absorption (24 hr, 73°F)	< 0.10	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	0.00	psi	ISO 527-1/1
Tensile Stress	0.00	psi	ISO 527-2
Tensile Strain (Yield)	0.0	%	ISO 527-2/50
Flexural Modulus ²	1.16E+6	psi	ISO 178
Flexural Stress ³	29000	psi	ISO 178
Flexural Strain - (Yield) ⁴	3.0	%	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Unnotched Impact Strength	24	ft·lb/in ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Continuous Use Temperature ⁵	482	°F	IEC 60216
Service Temperature - during lifetime max. 200 hr	536	°F	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+12	ohms	IEC 62631-3-2
Insulation Resistance ⁶	> 1.0E+12	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
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

