

LUVOTECH® eco+ PPS GF40 BK (REC50)

 LEHOSS Group - *Linear Polyphenylene Sulfide*
General Information
Product Description

with glass fibers; black

Main Features

- Strong, stiff, impact-resistant parts.
- High continuous-use and heat-distortion temperatures. Non flammable.
- High dimensionally stable precision parts with low warpage and narrow tolerance range.

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Filler / Reinforcement	• Glass Fiber		
Features	• High Dimensional Stability	• High Stiffness	• Low Warpage
	• High Heat Resistance	• High Strength	
	• High Impact Resistance	• Ignition Resistant	
Appearance	• Black		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.67	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (320°C/5.0 kg)	61	g/10 min	ISO 1133
Molding Shrinkage			DIN 16742
Across Flow	0.20 to 0.40	%	
Flow	0.80 to 1.0	%	
Water Absorption (24 hr, 73°F)	< 0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2.18E+6	psi	ISO 527-1/1
Tensile Stress	26800	psi	ISO 527-2
Tensile Strain (Yield)	2.0	%	ISO 527-2/50
Flexural Modulus ²	1.89E+6	psi	ISO 178
Flexural Stress ³	37000	psi	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	19	ft-lb/in ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	509	°F	ISO 75-2/A
Continuous Use Temperature ⁴	428	°F	IEC 60216
Service Temperature - during lifetime max. 200 hr	464	°F	
Electrical	Nominal Value	Unit	Test Method
Insulation Resistance ⁵	> 1.0E+12	ohms	IEC 62631-3-3

Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
--	122 to 194	°F
Desiccant Dryer, A	212 to 284	°F
Drying Time		
--	> 4.0	hr
Desiccant Dryer, A	2.0 to 4.0	hr



Rear Temperature	572 to 608 °F
Middle Temperature	590 to 626 °F
Front Temperature	608 to 644 °F
Nozzle Temperature	608 to 644 °F
Processing (Melt) Temp	626 °F
Mold Temperature	302 to 356 °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 20,000 hr

⁵ strip electrode R25

