

**LUVOTECH® eco PEEK 101010 BK**

LEHVOSS Group - Polyetheretherketone

**General Information**
**Product Description**

with carbon fibers, PTFE lubricant modified; natural color (black)

**Main Features**

- Improved friction and wear behaviour. Optimised for dry running operations.
- Dynamically-stressed parts moving at high velocity.
- Chemically- and hydrolytically- resistant parts, non flammable.
- Strong, stiff parts; low thermal coefficient of expansion.

**General**

Material Status	• Commercial: Active		
Availability	• Africa & Middle East	• Europe	• North America
	• Asia Pacific	• Latin America	
Filler / Reinforcement	• Carbon Fiber		
Additive	• PTFE Lubricant		
Features	• Chemical Resistant	• Hydrolytically Stable	• Low Friction
	• High Stiffness	• Ignition Resistant	• Lubricated
	• High Strength	• Low CLTE	• Wear Resistant
Appearance	• Black		

**Properties <sup>1</sup>**

Physical	Nominal Value	Unit	Test Method
Density	1.45	g/cm <sup>3</sup>	ISO 1183
Melt Volume-Flow Rate (MVR) (380°C/10.0 kg)	9.0	cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage			DIN 16742
Across Flow	0.50 to 0.80	%	
Flow	0.30 to 0.60	%	
Water Absorption (24 hr, 73°F)	< 0.10	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.84E+6	psi	ISO 527-1/1
Tensile Stress	19600	psi	ISO 527-2
Tensile Strain (Yield)	2.3	%	ISO 527-2/50
Flexural Modulus <sup>2</sup>	1.23E+6	psi	ISO 178
Flexural Stress <sup>3</sup>	29000	psi	ISO 178
Flexural Strain - (Yield) <sup>4</sup>	3.1	%	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	2.9	ft·lb/in <sup>2</sup>	ISO 179/1eA
Charpy Unnotched Impact Strength	14	ft·lb/in <sup>2</sup>	ISO 179/1eU

**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

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 0.079 in/min

<sup>3</sup> 0.39 in/min

<sup>4</sup> 10 mm/min

