LUVOTECH® PA66 rCF20 HS BK

LEHVOSS Group - *Polyamide 66*

General Information

Product Description

with carbon fibers, heat stabilized; black

Main Features

- Electrically conductive, suitable for continuous discharging of statically-generated electricity.
- High dimensionally stable precision parts with low warpage and narrow tolerance range.
- Reduced moment of inertia compared with metal parts.
- Very strong and stiff parts; low coefficient of thermal expansion.

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Carbon Fiber		
Additive	• Heat Stabilizer		
Features	• Electrically Conductive • Heat Stabilized • High Dimensional Stability	• High Stiffness • High Strength • Low CLTE	• Low Warpage
Appearance	• Black		

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density	1.23	g/cm³	ISO 1183
Molding Shrinkage			DIN 16742
Across Flow	0.10 to 0.20	%	
Flow	0.50 to 0.70	%	
Water Absorption (24 hr, 73°F)	< 1.0	%	ISO 62
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	2.32E+6	psi	ISO 527-1/1
Tensile Stress	30500	psi	ISO 527-2
Tensile Strain (Yield)	2.6	%	ISO 527-2/50
Flexural Modulus [2]	1.74E+6	psi	ISO 178
Flexural Stress [3]	45000	psi	ISO 178
Flexural Strain - (Yield) [4]	2.9	%	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength	2.9	ft·lb/in²	ISO 179/1eA
Charpy Unnotched Impact Strength	21	ft·lb/in²	ISO 179/1eU
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (264 psi, Unannealed)	464	°F	ISO 75-2/A
Continuous Use Temperature [5]	248	°F	IEC 60216
Vicat Softening Temperature	473	°F	ISO 306/A
Service Temperature - during lifetime max. 200 hr	320	°F	
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	< 1.0E+4	ohms	IEC 62631-3-2
Insulation Resistance [6]	< 1.0E+5	ohms	IEC 62631-3-3

Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer, A	167	°F

Vacuum Dryer, B	221 °F
Drying Time	
Desiccant Dryer, A	6.0 to 16 hr
Vacuum Dryer, B	4.0 to 6.0 hr
Rear Temperature	554 to 590 °F
Middle Temperature	554 to 590 °F
Front Temperature	554 to 590 °F
Nozzle Temperature	536 to 572 °F
Processing (Melt) Temp	554 °F
Mold Temperature	194 to 248 °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