

LUVOCOM® 50-7856/FR/BK

LEHVOSS Group - Polycarbonate

General Information

Product Description

with carbon fibers; black

Main Features

- Electrically conductive, suitable for continuous discharging of statically-generated electricity.
- High dimensionally stable precision parts, even at elevated temperatures 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		
Features	• Electrically Conductive • High Dimensional Stability	• High Heat Resistance • High Stiffness	• High Strength • Low CLTE
Appearance	• Black		

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.35	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (300°C/1.2 kg)	6.0	cm ³ /10min	ISO 1133
Molding Shrinkage			DIN 16742
Across Flow	0.20 to 0.40	%	
Flow	0.0 to 0.10	%	
Water Absorption (24 hr, 73°F)	< 0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2.03E+6	psi	ISO 527-1/1
Tensile Stress	18100	psi	ISO 527-2
Tensile Strain (Yield)	2.0	%	ISO 527-2/50
Flexural Modulus ²	1.74E+6	psi	ISO 178
Flexural Stress ³	26100	psi	ISO 178
Flexural Strain - (Yield) ⁴	2.5	%	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	2.9	ft·lb/in ²	ISO 179/1eA
Charpy Unnotched Impact Strength	14	ft·lb/in ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	284	°F	ISO 75-2/A
Continuous Use Temperature ⁵	266	°F	IEC 60216
Thermal Conductivity			ISO 22007
-- ⁶	2.1	Btu·in/hr/ft ² /°F	
-- ⁷	7.6	Btu·in/hr/ft ² /°F	
Service Temperature - during lifetime max. 200 hr	302	°F	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	< 1.0E+4	ohms	IEC 62631-3-2
Insulation Resistance ⁸	< 1.0E+4	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	248	°F
Drying Time - Desiccant Dryer, A	4.0 to 6.0	hr
Rear Temperature	536 to 572	°F
Middle Temperature	554 to 590	°F
Front Temperature	572 to 608	°F
Nozzle Temperature	554 to 590	°F
Processing (Melt) Temp	563	°F
Mold Temperature	176 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 through plane; hot disk

⁷ in plane; hot disk

⁸ strip electrode R25

