

LUVOTECH® PP CF 20 HP BK

LEHOSS Group - Polypropylene Copolymer

General Information
Product Description

with carbon fibers; natural color (black)

Main Features

- Strong, stiff parts.
- Low water absorption, for dimensionally-stable, high-precision parts.

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Filler / Reinforcement	• Carbon Fiber
Features	• Good Dimensional Stability • High Strength • High Stiffness • Low to No Water Absorption
Appearance	• Black

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	0.998	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	10	g/10 min	ISO 1133
Water Absorption (24 hr, 73°F)	< 0.30	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	1.89E+6	psi	ISO 527-1/1
Tensile Stress	17800	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	26400	psi	ISO 178
Flexural Strain - (Yield) ⁴	3.2	%	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	21	ft·lb/in ²	ISO 179/1eU
Thermal	Nominal Value	Unit	Test Method
Continuous Use Temperature ⁵	212	°F	IEC 60216
Service Temperature - during lifetime max. 200 hr	293	°F	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	< 1.0E+6	ohms	IEC 62631-3-2
Insulation Resistance ⁶	< 1.0E+6	ohms	IEC 62631-3-3

Processing Information

Injection	Nominal Value	Unit
Drying Temperature - Desiccant Dryer, A	158 to 203	°F
Drying Time - Desiccant Dryer, A	2.0 to 4.0	hr
Rear Temperature	374 to 428	°F
Middle Temperature	374 to 428	°F
Front Temperature	392 to 446	°F
Nozzle Temperature	392 to 446	°F
Processing (Melt) Temp	410	°F
Mold Temperature	104 to 176	°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

