

Technical Data Sheet

LUVOCOM® 20-0659

Polyphthalamide

General			
Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Carbon Fiber		
Features	• High Stiffness • High Strength	• Low CLTE • Moisture Resistant	• Wear Resistant
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		
Physical	Typical Value	Unit	Test Method
Density	1.32	g/cm ³	ISO 1183
Linear Mould Shrinkage	0.10 to 0.40	%	DIN 16742
Water Absorption (24 hr, 23°C)	< 0.30	%	ISO 62
Mechanical	Typical Value	Unit	Test Method
Tensile Modulus	25000	MPa	ISO 527-1/1
Tensile Stress	275	MPa	ISO 527-2/50
Tensile Strain (Yield)	2.0	%	ISO 527-2/50
Flexural Modulus ¹	23000	MPa	ISO 178
Flexural Stress ²	360	MPa	ISO 178
Flexural Strain - at max. force ²	2.0	%	ISO 178
Charpy Notched Impact Strength ³	8.0	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength ³			ISO 179/1eU
--	55	kJ/m ²	
-30°C	50	kJ/m ²	
Thermal	Typical Value	Unit	Test Method
Deflection Temperature Under Load 1.8 MPa, Unannealed	275	°C	ISO 75-2/A
Continuous Use Temperature ⁴	165	°C	IEC 60216
CLTE - Flow ⁵ (4.00 mm)	1.3E-5	cm/cm/°C	ISO 11359-2
Service Temperature - during lifetime max. 200 hr	195	°C	
Electrical	Typical Value	Unit	Test Method
Surface Resistivity (4.00 mm)	< 1.0E+2	ohms	IEC 60093
Insulation Resistance ⁶	< 1.0E+2	ohms	IEC 60167

LUVOCOM® 20-0659
Polyphthalamide

Injection	Typical Value	Unit
Drying Temperature		
Desiccant Dryer	80	°C
Vacuum Dryer	105	°C
Drying Time		
Desiccant Dryer	16	hr
Vacuum Dryer	4.0 to 5.0	hr
Suggested Max Moisture	0.050	%
Rear Temperature	320 to 340	°C
Middle Temperature	320 to 345	°C
Front Temperature	325 to 350	°C
Nozzle Temperature	320 to 330	°C
Processing (Melt) Temp	330	°C
Mold Temperature	135 to 160	°C

Injection Notes

General

- In general LUVOCOM® can be processed on conventional injection moulding machines while observing the usual technical guidelines.
- Any added fibrous materials or fillers may have an abrasive effect. In this case the cylinder and screw should be protected against wear as is usual in the processing of reinforced thermoplastic materials.
- Lengthy dwell times for the melts in the cylinder should be avoided.
- Lower the temperatures during interruptions!

Predrying

- It is advisable to predry the granulate with a suitable dryer immediately before processing.
- The granulate may absorb moisture from the environment.

Delivery Form & Storage

- Unless indicated otherwise, the material is delivered as 3mm long pellets in sealed bags on pallets.
- Preferably storage should be effected in dry and normally temperatured rooms.

Additional Information

- During processing the moisture level should not exceed 0.05%, otherwise molecular degradation and surface defects (e.g. smearing) may occur.
- Processing temperatures above 350°C may very rapidly cause thermal damage and should therefore be avoided.
- 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.
- High-temperature polymers place increased demands on the tool steels employed.
- Please contact us for further information.

LUVOCOM® 20-0659

Polyphthalamide

Notes
Typical properties: these are not to be construed as specifications.
¹ 2.0 mm/min
² 10 mm/min
³ 80x10x4mm
⁴ 20,000 hr
⁵ 10x8x4 mm
⁶ Strip Electrode R25

Europe & Headquarters

Lehmann&Voss & Co. KG
Alsterufer 19
20354 Hamburg
Germany
Tel +49 40 44 197-250
Fax +49 40 44 198-250
Email: luvocom@lehvoss.de

North America

LEHVOSS North America, LLC
185 South Broad Street
Pawcatuck, CT 06379
USA
Tel +1-855-681-3226
Fax +1 860 495 2047
Email: info@lehvossllc.com

Asia

**LEHVOSS (Shanghai)
Chemical Trading Co. Ltd**
Unit 4805 Maxdo Centre
8 Xingyi Road Changning District
Shanghai 200336
China
Tel +86 21 6278 5181
Email: info@lehvoss.cn



www.luvocom.com