# LUVOCOM® 20-0951 VP

Polyphthalamide

LEHVOSS Group

## Message:

LUVOCOM®20-0951 VP is a polyxylene amide (PPA) material, and the filler is carbon fiber reinforced material. This product is available in North America, Africa and the Middle East, Latin America, Europe or Asia Pacific.
LUVOCOM®The main features of 20-0951 VP are:
Conductivity
High stiffness
high strength
moisture resistance
Typical application areas include:
engineering/industrial accessories
Electrical/electronic applications
textile/fiber
Automotive Industry
business/office supplies

| General Information | |
|---|---|
| Filler / Reinforcement | Carbon fiber reinforced material |
| Features | Conductivity<br>Moisture resistance<br>Rigidity, high<br>High strength<br>Static conduction |
| Uses | Gear<br>Textile applications<br>Engineering accessories<br>Switch<br>Application in Automobile Field<br>Business equipment<br>Bearing |
| Appearance | Natural color |

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density | 1.36 | g/cm³ | ISO 1183 |
| Molding Shrinkage | 0.050 - 0.30 | % | DIN 16901 |
| Water Absorption (23°C, 24 hr) | < 0.30 | % | |

| Mechanical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Tensile Modulus | 31000 | MPa | ISO 527-2 |
| Tensile Stress (Break) | 315 | MPa | ISO 527-2 |
| Tensile Strain (Yield) | 1.5 | % | ISO 527-2 |
| Flexural Modulus | 25000 | MPa | ISO 178 |

| | | | |
|---|---|---|---|
| Flexural Stress | 440 | MPa | ISO 178 |
| Flexural Strain at Flexural Strength | 2.0 | % | ISO 178 |
| Maximum operating temperature-Short Term | 195 | °C | |
| Insulation Resistance | | ohms | IEC 60167 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Charpy Notched Impact Strength (23°C) | 8.0 | $kJ/m^2$ | ISO 179/1eA |
| Charpy Unnotched Impact Strength (23°C) | 40 | $kJ/m^2$ | ISO 179/1fU |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Heat Deflection Temperature (1.8 MPa, Unannealed) | 240 | °C | ISO 75-2/A |
| Continuous Use Temperature | 165 | °C | UL 746B |
| Vicat Softening Temperature | 285 | °C | ISO 306/A |
| CLTE - Flow | 1.1E-5 | cm/cm/°C | DIN 53752 |
| Thermal Conductivity | 0.60 | W/m/K | DIN 52612 |
| **Electrical** | **Nominal Value** | **Unit** | **Test Method** |
| Surface Resistivity | < 1.0E+3 | ohms | IEC 60093 |
| **Injection** | **Nominal Value** | **Unit** | |
| Drying Temperature | | | |
| Hot air dryer, A | 80 | °C | |
| Vacuum dryer, B | 105 | °C | |
| Drying Time | | | |
| Hot air dryer, A | 16 | hr | |
| Vacuum dryer, B | 4.0 - 5.0 | hr | |
| Rear Temperature | 320 - 340 | °C | |
| Middle Temperature | 320 - 345 | °C | |
| Front Temperature | 325 - 350 | °C | |
| Nozzle Temperature | 320 - 330 | °C | |
| Processing (Melt) Temp | 330 | °C | |
| Mold Temperature | 135 - 160 | °C | |
| **Injection instructions** | | | |

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 (optional)
It is advisable to predry the granulate with a suitable dryer immediately before processing.
The granulate may absorb moisture from the air.
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. As the material absorbs water rapidly, originally sealed containers should only be opened immediately before processing. Processing temperatures above 340°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.



## Recommended distributors for this material

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