

LUVOCOM® 1880-8748

Liquid Crystal Polymer

Lehmann & Voss & Co.

Message:

LUVOCOM® 1880-8748 is a liquid crystal polymer (LCP) material. This product is available in North America, Africa and the Middle East, Latin America, Europe or Asia Pacific.

LUVOCOM® The main features of 1880-8748 are:

Good dimensional stability

Good stiffness

Wear-resistant

Lubrication

Typical application areas include:

Electrical/electronic applications

engineering/industrial accessories

Aerospace

medical/health care

| General Information | | | |
|--------------------------------|------------------------------------|-------------------|-------------|
| Additive | PTFE lubricant | | |
| Features | Good dimensional stability | | |
| | Rigid, good | | |
| | Good strength | | |
| | Good wear resistance | | |
| | Lubrication | | |
| Uses | Electrical/Electronic Applications | | |
| | Engineering accessories | | |
| | Aerospace applications | | |
| | Medical/nursing supplies | | |
| Appearance | Grey | | |
| Physical | Nominal Value | Unit | Test Method |
| Density | 1.46 | g/cm ³ | ISO 1183 |
| Molding Shrinkage | 0.0 - 0.10 | % | DIN 16901 |
| Water Absorption (23°C, 24 hr) | < 0.010 | % | |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Modulus | 9000 | MPa | ISO 527-2 |
| Tensile Stress (Break) | 145 | MPa | ISO 527-2 |
| Tensile Strain (Yield) | 3.2 | % | ISO 527-2 |
| Flexural Modulus | 8000 | MPa | ISO 178 |
| Flexural Stress | 190 | MPa | ISO 178 |
| Coefficient of Friction | | | |
| Dynamic | 0.16 | | |
| Static | 0.22 | | |

| | | | |
|---|----------------------|-------------------|--------------------|
| Flexural Strain at Flexural Strength | 4.0 | % | ISO 178 |
| Maximum operating temperature-Short Term | 230 | °C | |
| Insulation Resistance | > 1.0E+12 | ohms | IEC 60167 |
| Impact | Nominal Value | Unit | Test Method |
| Charpy Notched Impact Strength (23°C) | 33 | kJ/m ² | ISO 179/1eA |
| Charpy Unnotched Impact Strength (23°C) | 90 | kJ/m ² | ISO 179/1eU |
| Thermal | Nominal Value | Unit | Test Method |
| Heat Deflection Temperature (1.8 MPa, Unannealed) | 225 | °C | ISO 75-2/A |
| Continuous Use Temperature | 190 | °C | UL 746B |
| Electrical | Nominal Value | Unit | Test Method |
| Surface Resistivity | > 1.0E+12 | ohms | IEC 60093 |
| Injection | Nominal Value | Unit | |
| Drying Temperature | | | |
| A | 130 - 150 | °C | |
| Vacuum dryer, B | 150 | °C | |
| Drying Time | | | |
| A | 3.0 - 5.0 | hr | |
| Vacuum dryer, B | 4.0 - 5.0 | hr | |
| Suggested Max Moisture | 0.020 | % | |
| Rear Temperature | 290 - 330 | °C | |
| Middle Temperature | 310 - 340 | °C | |
| Front Temperature | 320 - 340 | °C | |
| Nozzle Temperature | 300 - 320 | °C | |
| Processing (Melt) Temp | 320 | °C | |
| Mold Temperature | 90.0 - 130 | °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 0.02%, otherwise molecular degradation and surface defects (e.g. smearing) may occur. As the material absorbs water very quickly, the predried material should be fed to the processing immediately. Processing temperatures above 300°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.

Please contact us for further information.

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