

LUVOCOM® 1105-0831

Polyetheretherketone

Lehmann & Voss & Co.

Message:

LUVOCOM® 1105-0831 is a polyetheretherketone (PEEK) material. This product is available in North America, Africa and the Middle East, Latin America, Europe or Asia Pacific.

LUVOCOM® The main features of 1105-0831 are:

Flame Retardant

chemical resistance

Biocompatibility

Typical application areas include:

textile/fiber

engineering/industrial accessories

Aerospace

Automotive Industry

medical/health care

| General Information | | | |
|--|---------------------------------|------------------------|-------------|
| Features | Good liquidity | | |
| | Good chemical resistance | | |
| | Biocompatibility | | |
| | Flame retardancy | | |
| Uses | Textile applications | | |
| | Engineering accessories | | |
| | Aerospace applications | | |
| | Application in Automobile Field | | |
| | Medical/nursing supplies | | |
| Appearance | Black | | |
| Physical | Nominal Value | Unit | Test Method |
| Density | 1.29 | g/cm ³ | ISO 1183 |
| Melt Volume-Flow Rate (MVR) (380°C/1.2 kg) | 15.0 | cm ³ /10min | ISO 1133 |
| Molding Shrinkage | 1.0 - 1.6 | % | DIN 16901 |
| Water Absorption (23°C, 24 hr) | 0.50 | % | |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Modulus | 4000 | MPa | ISO 527-2 |
| Tensile Stress (Break) | 100 | MPa | ISO 527-2 |
| Tensile Strain (Yield) | 4.7 | % | ISO 527-2 |
| Flexural Modulus | 3500 | MPa | ISO 178 |
| Flexural Stress | 145 | MPa | ISO 178 |
| Coefficient of Friction | | | |
| Dynamic | 0.26 | | |

| Static | 0.21 | | |
|---|---------------|----------|-------------|
| Flexural Strain at Flexural Strength | 6.0 | % | ISO 178 |
| Maximum operating temperature-Short Term | 260 | °C | |
| Insulation Resistance | > 1.0E+12 | ohms | IEC 60167 |
| Thermal | Nominal Value | Unit | Test Method |
| Heat Deflection Temperature (1.8 MPa, Unannealed) | 156 | °C | ISO 75-2/A |
| Continuous Use Temperature | 250 | °C | UL 746B |
| Vicat Softening Temperature | 300 | °C | ISO 306/A |
| CLTE - Flow | 5.0E-5 | cm/cm/°C | DIN 53752 |
| Thermal Conductivity | 0.25 | W/m/K | DIN 52612 |
| Injection | Nominal Value | Unit | |
| Drying Temperature | | | |
| Hot air dryer, A | 150 | °C | |
| Hot air dryer, B | 120 | °C | |
| Drying Time | | | |
| Hot air dryer, A | 3.0 - 6.0 | hr | |
| Hot air dryer, B | 6.0 - 8.0 | hr | |
| Suggested Max Moisture | 0.050 | % | |
| Rear Temperature | 360 - 370 | °C | |
| Middle Temperature | 380 - 390 | °C | |
| Front Temperature | 390 - 400 | °C | |
| Nozzle Temperature | 360 - 380 | °C | |
| Processing (Melt) Temp | 390 | °C | |
| Mold Temperature | 170 - 190 | °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 content should not exceed 0.05%. To avoid internal stresses, a medium to high injection rate should be used. An increase in tool temperature may be helpful. Post-crystallization may lead to warpage at elevated operating temperatures. This can be counteracted by suitable heat treatment.

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.

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