# LUVOCOM® 1105-7938/GY VP

## Polyetheretherketone

Lehmann & Voss & Co.

### Message:

LUVOCOM® 1105-7938/GY VP is a polyetheretherketone (PEEK) material, which contains a glass fiber reinforced material. This product is available in North America, Africa and the Middle East, Latin America, Europe or Asia Pacific. LUVOCOM® The main characteristics of 1105-7938/GY VP are: flame retardant/rated flame Flame Retardant Good dimensional stability Good stiffness chemical resistance Typical application areas include: textile/fiber engineering/industrial accessories Aerospace Automotive Industry medical/health care

General Information Filler / Reinforcement Glass fiber reinforced material Features Good dimensional stability Rigid, good Good strength Good chemical resistance Heat resistance, high Hydrolysis stability Flame retardancy Textile applications Uses Engineering accessories Aerospace applications Application in Automobile Field Medical/nursing supplies Appearance Light gray Nominal Value Physical Unit Test Method Density 1.65 g/cm<sup>3</sup> ISO 1183

| Molding Shrinkage              | 0.20 - 0.50   | %    | DIN 16901   |
|--------------------------------|---------------|------|-------------|
| Water Absorption (23°C, 24 hr) | < 0.10        | %    |             |
| Mechanical                     | Nominal Value | Unit | Test Method |
| Tensile Modulus                | 12000         | MPa  | ISO 527-2   |
| Tensile Stress (Break)         | 145           | MPa  | ISO 527-2   |
| Tensile Strain (Yield)         | 2.0           | %    | ISO 527-2   |
|                                |               |      |             |

| Flexural Modulus   | 10000  | MPa                             | ISO 178     |
|--|--|---------------------------------|-------------|
| Flexural Stress  | 200  | MPa                             | ISO 178     |
| Flexural Strain at Flexural Strength   | 2.5  | %                               | ISO 178     |
| Maximum operating temperature-Short  |  |                                 |             |
| Term   | 280  | °C                              |             |
| Insulation Resistance  | > 1.0E+12  | ohms                            | IEC 60167   |
| Impact   | Nominal Value  | Unit                            | Test Method |
| Charpy Unnotched Impact Strength (23°C)  | 40   | kJ/m²                           | ISO 179/1eU |
| Thermal  | Nominal Value  | Unit                            | Test Method |
| Continuous Use Temperature   | 250  | °C                              | UL 746B     |
| CLTE - Flow  | 2.2E-5   | cm/cm/°C                        | DIN 53752   |
| Thermal Conductivity   | 0.40   | W/m/K                           | DIN 52612   |
| Electrical   | Nominal Value  | Unit                            | Test Method |
| Surface Resistivity  | > 1.0E+12  | ohms                            | IEC 60093   |
| Flammability   | Nominal Value  | Unit                            | Test Method |
| Flame Rating <sup>1</sup>  | V-0  |                                 | UL 94       |
| Injection  | Nominal Value  | Unit                            |             |
| Drying Temperature   |  |                                 |             |
|  |  |                                 |             |
| Hot air dryer, A   | 150  | °C                              |             |
| Hot air dryer, A<br>Hot air dryer, B   | 150<br>120   | °C<br>°C                        |             |
| · · · · · · · · · · · · · · · · · · ·  |  |                                 |             |
| Hot air dryer, B   |  |                                 |             |
| Hot air dryer, B<br>Drying Time  | 120  | °C                              |             |
| Hot air dryer, B<br>Drying Time<br>Hot air dryer, A  | 120<br>3.0 - 6.0   | °C<br>hr                        |             |
| Hot air dryer, B<br>Drying Time<br>Hot air dryer, A<br>Hot air dryer, B  | 120<br>3.0 - 6.0<br>6.0 - 8.0  | °C<br>hr<br>hr                  |             |
| Hot air dryer, B<br>Drying Time<br>Hot air dryer, A<br>Hot air dryer, B<br>Suggested Max Moisture  | 120<br>3.0 - 6.0<br>6.0 - 8.0<br>0.050   | °C<br>hr<br>hr<br>%             |             |
| Hot air dryer, B<br>Drying Time<br>Hot air dryer, A<br>Hot air dryer, B<br>Suggested Max Moisture<br>Rear Temperature  | 120<br>3.0 - 6.0<br>6.0 - 8.0<br>0.050<br>360 - 370  | °C<br>hr<br>hr<br>%<br>°C       |             |
| Hot air dryer, B<br>Drying Time<br>Hot air dryer, A<br>Hot air dryer, B<br>Suggested Max Moisture<br>Rear Temperature<br>Middle Temperature  | 120<br>3.0 - 6.0<br>6.0 - 8.0<br>0.050<br>360 - 370<br>380 - 390                           | °C<br>hr<br>hr<br>%<br>°C       |             |
| Hot air dryer, B<br>Drying Time<br>Hot air dryer, A<br>Hot air dryer, B<br>Suggested Max Moisture<br>Rear Temperature<br>Middle Temperature<br>Front Temperature                       | 120<br>3.0 - 6.0<br>6.0 - 8.0<br>0.050<br>360 - 370<br>380 - 390<br>390 - 400              | °C<br>hr<br>hr<br>%<br>°C<br>°C |             |
| Hot air dryer, B<br>Drying Time<br>Hot air dryer, A<br>Hot air dryer, B<br>Suggested Max Moisture<br>Rear Temperature<br>Middle Temperature<br>Front Temperature<br>Nozzle Temperature | 120<br>3.0 - 6.0<br>6.0 - 8.0<br>0.050<br>360 - 370<br>380 - 390<br>390 - 400<br>360 - 380 | °C hr hr % °C °C °C °C          |             |

#### 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.

NOTE

1.

Not recognized by UL.

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