

# LUVOCOM® 1100-7725 VP

Polyethersulfone

Lehmann & Voss & Co.

## Message:

LUVOCOM® 1100-7725 VP is a polyethersulfone (PES) material, and the filler is 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 features of 1100-7725 VP are:

flame retardant/rated flame

sterilizable

Good dimensional stability

Lubrication

Typical application areas include:

Electrical/electronic applications

engineering/industrial accessories

Reflector

Aerospace

Sporting goods

| General Information                        |                                    |                        |             |
|--|------------------------------------|------------------------|-------------|
| Filler / Reinforcement                     | Glass fiber reinforced material    |                        |             |
| Additive                                   | Lubricant                          |                        |             |
| Features                                   | Good dimensional stability         |                        |             |
|  | Good disinfection                  |                        |             |
|  | Hydrolysis resistance              |                        |             |
|  | Lubrication                        |                        |             |
|  | Disinfect with steam               |                        |             |
| Uses                                       | Thin wall parts                    |                        |             |
|  | Electrical/Electronic Applications |                        |             |
|  | Reflector                          |                        |             |
|  | Engineering accessories            |                        |             |
|  | Aerospace applications             |                        |             |
|  | Switch                             |                        |             |
|  | Sporting goods                     |                        |             |
|  | Medical/nursing supplies           |                        |             |
| Appearance                                 | Natural color                      |                        |             |
| Physical                                   | Nominal Value                      | Unit                   | Test Method |
| Density                                    | 1.45                               | g/cm <sup>3</sup>      | ISO 1183    |
| Melt Volume-Flow Rate (MVR) (345°C/5.0 kg) | 16.0                               | cm <sup>3</sup> /10min | ISO 1133    |
| Molding Shrinkage                          | 0.40 - 0.70                        | %                      | DIN 16901   |
| Water Absorption (23°C, 24 hr)             | < 0.10                             | %                      |             |
| Mechanical                                 | Nominal Value                      | Unit                   | Test Method |

|  |               |                   |             |
|--|---------------|-------------------|-------------|
| Tensile Modulus                          | 4500          | MPa               | ISO 527-2   |
| Tensile Stress (Break)                   | 110           | MPa               | ISO 527-2   |
| Tensile Strain (Yield)                   | 4.0           | %                 | ISO 527-2   |
| Flexural Modulus                         | 3500          | MPa               | ISO 178     |
| Flexural Stress                          | 150           | MPa               | ISO 178     |
| Coefficient of Friction                  |               |                   |             |
| Dynamic                                  | 0.21          |                   |             |
| Static                                   | 0.20          |                   |             |
| Flexural Strain at Flexural Strength     | 4.5           | %                 | ISO 178     |
| Maximum operating temperature-Short Term | 200           | °C                |             |
| Insulation Resistance                    | > 1.0E+12     | ohms              | IEC 60167   |
| Impact                                   | Nominal Value | Unit              | Test Method |
| Charpy Unnotched Impact Strength (23°C)  | 42            | kJ/m <sup>2</sup> | ISO 179/1eU |
| Thermal                                  | Nominal Value | Unit              | Test Method |
| Continuous Use Temperature               | 180           | °C                | UL 746B     |
| Vicat Softening Temperature              | 215           | °C                | ISO 306/A   |
| Flammability                             | Nominal Value | Unit              | Test Method |
| Flame Rating <sup>1</sup>                | V-0           |                   | UL 94       |
| Injection                                | Nominal Value | Unit              |             |
| Drying Temperature - Desiccant Dryer     | 150           | °C                |             |
| Drying Time - Desiccant Dryer            | 3.0 - 5.0     | hr                |             |
| Suggested Max Moisture                   | 0.050         | %                 |             |
| Rear Temperature                         | 355 - 375     | °C                |             |
| Middle Temperature                       | 360 - 380     | °C                |             |
| Front Temperature                        | 350 - 370     | °C                |             |
| Nozzle Temperature                       | 340 - 360     | °C                |             |
| Processing (Melt) Temp                   | 350           | °C                |             |
| Mold Temperature                         | 120 - 200     | °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 porosity and surface defects (e.g. smearing) may occur. To avoid internal stresses, a low shear load should be used for processing. The parts may be tempered at a later stage to reduce internal stresses.

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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#### Recommended distributors for this material

### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China



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