

# LUVOCOM® 1850/CF/10/TF/10/EM VP

Polybutylene Terephthalate

Lehmann & Voss & Co.

Message:

LUVOCOM® 1850/CF/10/TF/10/EM VP is a polybutene terephthalate (PBT) material, and the filler is 10% 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 characteristics of 1850/CF/10/TF/10/EM VP are:

- Conductivity
- Electrostatic protection
- Good stiffness
- Wear-resistant
- Lubrication
- Typical application areas include:
- Electrical/electronic applications
- House
- textile/fiber
- engineering/industrial accessories
- Automotive Industry

| General Information                        |  |           |             |
|--|--|-----------|-------------|
| Filler / Reinforcement                     | Carbon fiber reinforced material, 10% filler by weight |           |             |
| Additive                                   | PTFE lubricant (10%)                                   |           |             |
| Features                                   | Conductivity   |           |             |
|  | Low friction coefficient                               |           |             |
|  | Rigid, good  |           |             |
|  | Electrostatic discharge protection                     |           |             |
|  | Antistatic property                                    |           |             |
|  | Good liquidity   |           |             |
|  | Good strength  |           |             |
|  | Good wear resistance                                   |           |             |
|  | Lubrication  |           |             |
| Uses                                       | Electrical/Electronic Applications                     |           |             |
|  | Textile applications                                   |           |             |
|  | Engineering accessories                                |           |             |
|  | Application in Automobile Field                        |           |             |
|  | Business equipment                                     |           |             |
|  | Shell  |           |             |
| Appearance                                 | Natural color  |           |             |
| Physical                                   | Nominal Value  | Unit      | Test Method |
| Density                                    | 1.41   | g/cm³     | ISO 1183    |
| Melt Volume-Flow Rate (MVR) (250°C/5.0 kg) | 40.0   | cm³/10min | ISO 1133    |
| Molding Shrinkage                          | 0.20 - 0.50  | %         | DIN 16901   |

| Water Absorption (23°C, 24 hr)           | < 0.10        | %                 |             |
|--|---------------|-------------------|-------------|
| Mechanical                               | Nominal Value | Unit              | Test Method |
| Tensile Modulus                          | 9000          | MPa               | ISO 527-2   |
| Tensile Stress (Break)                   | 110           | MPa               | ISO 527-2   |
| Tensile Strain (Yield)                   | 2.0           | %                 | ISO 527-2   |
| Flexural Modulus                         | 7500          | MPa               | ISO 178     |
| Flexural Stress                          | 160           | MPa               | ISO 178     |
| Flexural Strain at Flexural Strength     | 2.6           | %                 | ISO 178     |
| Maximum operating temperature-Short Term | 180           | °C                |             |
| Insulation Resistance                    |               | ohms              | IEC 60167   |
| Impact                                   | Nominal Value | Unit              | Test Method |
| Charpy Unnotched Impact Strength (23°C)  | 30            | kJ/m <sup>2</sup> | ISO 179/1eU |
| Thermal                                  | Nominal Value | Unit              | Test Method |
| Continuous Use Temperature               | 130           | °C                | UL 746B     |
| Electrical                               | Nominal Value | Unit              | Test Method |
| Surface Resistivity                      | < 1.0E+4      | ohms              | IEC 60093   |
| Injection                                | Nominal Value | Unit              |             |
| Drying Temperature                       |               |                   |             |
| A  | 120           | °C                |             |
| Vacuum dryer, B                          | 80.0          | °C                |             |
| Drying Time                              |               |                   |             |
| A  | 4.0 - 6.0     | hr                |             |
| Vacuum dryer, B                          | 6.0 - 8.0     | hr                |             |
| Suggested Max Moisture                   | 0.020         | %                 |             |
| Rear Temperature                         | 240 - 260     | °C                |             |
| Middle Temperature                       | 260 - 280     | °C                |             |
| Front Temperature                        | 250 - 270     | °C                |             |
| Nozzle Temperature                       | 250 - 265     | °C                |             |
| Processing (Melt) Temp                   | 250           | °C                |             |
| Mold Temperature                         | 60.0 - 120    | °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 270°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.

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

#### 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

