

## LUVOCOM® 1850-7783

LEHVOSS Group - *Polybutylene Terephthalate*

### General Information

#### Product Description

with glass fibers, PTFE lubricant modified; black

#### Main Features

- Improved friction and wear behaviour. Optimised for dry running operations.
- Strong, stiff parts.

#### General

|                        |                                          |                                |                  |
|------------------------|------------------------------------------|--------------------------------|------------------|
| Material Status        | • Commercial: Active                     |                                |                  |
| Availability           | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America    | • North America  |
| Filler / Reinforcement | • Glass Fiber                            |                                |                  |
| Additive               | • PTFE Lubricant                         |                                |                  |
| Features               | • High Stiffness<br>• High Strength      | • Low Friction<br>• Lubricated | • Wear Resistant |
| Appearance             | • Black                                  |                                |                  |

### Properties <sup>1</sup>

| Physical                                          | Nominal Value | Unit                  | Test Method   |
|---------------------------------------------------|---------------|-----------------------|---------------|
| Density                                           | 1.70          | g/cm <sup>3</sup>     | ISO 1183      |
| Water Absorption (24 hr, 73°F)                    | < 0.10        | %                     | ISO 62        |
| Mechanical                                        | Nominal Value | Unit                  | Test Method   |
| Tensile Modulus                                   | 1.89E+6       | psi                   | ISO 527-1/1   |
| Tensile Stress                                    | 19600         | psi                   | ISO 527-2     |
| Tensile Strain (Yield)                            | 1.8           | %                     | ISO 527-2/50  |
| Flexural Modulus <sup>2</sup>                     | 1.60E+6       | psi                   | ISO 178       |
| Flexural Stress <sup>3</sup>                      | 29000         | psi                   | ISO 178       |
| Flexural Strain - (Yield) <sup>4</sup>            | 2.4           | %                     | ISO 178       |
| Impact                                            | Nominal Value | Unit                  | Test Method   |
| Charpy Unnotched Impact Strength                  | 21            | ft-lb/in <sup>2</sup> | ISO 179/1eU   |
| Thermal                                           | Nominal Value | Unit                  | Test Method   |
| Continuous Use Temperature <sup>5</sup>           | 266           | °F                    | IEC 60216     |
| Vicat Softening Temperature                       | 419           | °F                    | ISO 306/A     |
| Service Temperature - during lifetime max. 200 hr | 356           | °F                    |               |
| Electrical                                        | Nominal Value | Unit                  | Test Method   |
| Insulation Resistance <sup>6</sup>                | > 1.0E+12     | ohms                  | IEC 62631-3-3 |

### Processing Information

| Injection          | Nominal Value | Unit |
|--------------------|---------------|------|
| Drying Temperature |               |      |
| Desiccant Dryer, A | 248           | °F   |
| Vacuum Dryer, B    | 176           | °F   |
| Drying Time        |               |      |
| Desiccant Dryer, A | 4.0 to 6.0    | hr   |
| Vacuum Dryer, B    | 6.0 to 8.0    | hr   |
| Rear Temperature   | 464 to 500    | °F   |
| Middle Temperature | 500 to 536    | °F   |
| Front Temperature  | 482 to 518    | °F   |
| Nozzle Temperature | 482 to 509    | °F   |



|                        |               |
|------------------------|---------------|
| Processing (Melt) Temp | 482 °F        |
| Mold Temperature       | 140 to 248 °F |

**Injection Notes**

During processing, the moisture level should not exceed 0.01%, otherwise molecular degradation may occur. As the material absorbs water very quickly, the predried material should be fed to the processing immediately. 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.

**Notes**

- <sup>1</sup> Typical properties: these are not to be construed as specifications.
- <sup>2</sup> 0.079 in/min
- <sup>3</sup> 0.39 in/min
- <sup>4</sup> 10 mm/min
- <sup>5</sup> 20,000 hr
- <sup>6</sup> strip electrode R25

