

LUVOCOM® TPI-0953

 LEHOSS Group - *Thermoplastic Polyimide*
General Information
Product Description

with carbon fibers, PTFE lubricant modified; dark grey

Main Features

- Very high continuous-use and heat-distortion temperatures. Non flammable.
- Highly chemically- and hydrolysis- resistant parts, non flammable.
- Improved friction and wear behaviour, self-lubricating, for highest tribological requirements.

General

| | | | |
|------------------------|--|--|--|
| Material Status | • Commercial: Active | | |
| Availability | • Africa & Middle East • Asia Pacific | • Europe • Latin America | • North America |
| Filler / Reinforcement | • Carbon Fiber | | |
| Additive | • PTFE Lubricant | | |
| Features | • Chemical Resistant • High Heat Resistance • Hydrolysis Resistant | • Ignition Resistant • Low Friction • Lubricated | • Self Lubricating • Wear Resistant |
| Appearance | • Dark Grey | | |

Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|---|----------------------|-----------------------|--------------------|
| Density | 1.46 | g/cm ³ | ISO 1183 |
| Water Absorption (24 hr, 73°F) | < 0.10 | % | ISO 62 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Modulus | 1.45E+6 | psi | ISO 527-1/1 |
| Tensile Stress | 17400 | psi | ISO 527-2 |
| Tensile Strain (Yield) | 2.3 | % | ISO 527-2/50 |
| Flexural Modulus ² | 1.16E+6 | psi | ISO 178 |
| Flexural Stress ³ | 25400 | psi | ISO 178 |
| Flexural Strain - (Yield) ⁴ | 3.0 | % | ISO 178 |
| Impact | Nominal Value | Unit | Test Method |
| Charpy Notched Impact Strength | | | ISO 179/1eA |
| -- | 4.8 | ft·lb/in ² | |
| -22°F | 4.8 | ft·lb/in ² | |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load (264 psi, Unannealed) | 446 | °F | ISO 75-2/A |
| Continuous Use Temperature ⁵ | 446 | °F | IEC 60216 |
| CLTE - Flow | 1.7E-5 | in/in/°F | ISO 11359-2 |
| Electrical | Nominal Value | Unit | Test Method |
| Surface Resistivity | < 1.0E+10 | ohms | IEC 62631-3-2 |
| Insulation Resistance ⁶ | < 1.0E+10 | ohms | IEC 62631-3-3 |
| Flammability | Nominal Value | Unit | Test Method |
| Flame Rating (0.06 in) | V-0 | | Internal Method |

Processing Information

| Injection | Nominal Value | Unit |
|--------------------|----------------------|-------------|
| Drying Temperature | | |
| Desiccant Dryer, A | 356 | °F |
| Desiccant Dryer, B | 392 | °F |
| Drying Time | | |



| | |
|--------------------|---------------|
| Desiccant Dryer, A | 5.0 to 10 hr |
| Desiccant Dryer, B | 3.0 to 4.0 hr |
| Rear Temperature | 698 to 734 °F |
| Middle Temperature | 716 to 734 °F |
| Front Temperature | 716 to 752 °F |
| Nozzle Temperature | 734 to 770 °F |
| Mold Temperature | 356 to 392 °F |

Injection Notes

Depending on degree of crystallinity short use temperature may reach 320°C (tempering).

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

¹ Typical properties: these are not to be construed as specifications.

² 0.079 in/min

³ 0.39 in/min

⁴ 10 mm/min

⁵ 20,000 hr

⁶ strip electrode R25

