

**LUVOCOM® 1105/WT106**

LEHVOSS Group - Polyetheretherketone

**General Information**
**Product Description**

unreinforced; grey white

**Main Features**

- Inherent flame resistance.
- Especially suitable for medical parts, superheated steam sterilizable, hydrolysis resistance.
- Highly chemically-resistant parts, non flammable.

**General**

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Features	• Chemical Resistant • Flame Retardant • Hydrolysis Resistant • Ignition Resistant • Steam Sterilizable
Uses	• Medical/Healthcare Applications
Appearance	• Light Grey

**Properties <sup>1</sup>**

Physical	Nominal Value	Unit	Test Method
Density	1.34	g/cm <sup>3</sup>	ISO 1183
Melt Volume-Flow Rate (MVR) (380°C/5.0 kg)	10	cm <sup>3</sup> /10min	ISO 1133
Water Absorption (24 hr, 73°F)	< 0.50	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	537000	psi	ISO 527-1/1
Tensile Stress	14500	psi	ISO 527-2
Tensile Strain (Yield)	5.0	%	ISO 527-2/50
Flexural Modulus <sup>2</sup>	435000	psi	ISO 178
Flexural Stress <sup>3</sup>	20300	psi	ISO 178
Flexural Strain - (Yield) <sup>4</sup>	6.0	%	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength	4.8	ft·lb/in <sup>2</sup>	ISO 179/1eA
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (264 psi, Unannealed)	306	°F	ISO 75-2/A
Continuous Use Temperature <sup>5</sup>	482	°F	IEC 60216
CLTE - Flow	2.8E-5	in/in/°F	ISO 11359-2
Service Temperature - during lifetime max. 200 hr	500	°F	
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+12	ohms	IEC 62631-3-2
Insulation Resistance <sup>6</sup>	> 1.0E+12	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	302	°F
Desiccant Dryer, B	248	°F
Drying Time		
Desiccant Dryer, A	3.0 to 6.0	hr



Desiccant Dryer, B	6.0 to 8.0 hr
Rear Temperature	680 to 698 °F
Middle Temperature	716 to 734 °F
Front Temperature	734 to 752 °F
Nozzle Temperature	680 to 716 °F
Processing (Melt) Temp	734 °F
Mold Temperature	338 to 392 °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

