

Lehmann & Voss LUVOCOM[®] 1105/CF/10/GR/10/TF/10-2 PEEK, with carbon fiber, PTFE, lubricant modified

Category : Polymer , Thermoplastic , Polyketone , Polyetheretherketone (PEEK) , Polyetheretherketone, PEEK, Carbon Fiber Filled

Material Notes:

Applications: Automotive industry, textile machinery, medical- and precision engineering, aircraft industry.Strong, stiff parts; low thermal coefficient of expansion.Dynamic stressed parts at high movement velocity.Chemical and hydrolysis resistance parts, non flammable.Improved friction and wear behaviour, self-lubricating, for highest tribologic needs.Bearings, sleeves, control disks, gear wheels, pump impellers, gear parts.Information provided by Lehmann & Voss & Co.KG

Order this product through the following link:

http://www.lookpolymers.com/polymer_Lehmann-Voss-LUVOCOM-1105CF10GR10TF10-2-PEEK-with-carbon-fiber-PTFE-lubricant-modified.php

Physical Properties	Metric	English	Comments
Specific Gravity	1.44 g/cc	1.44 g/cc	ISO 1183
Water Absorption	<= 0.10 %	<= 0.10 %	23Â°C/24h
Linear Mold Shrinkage	0.0020 - 0.0050 cm/cm	0.0020 - 0.0050 in/in	
Melt Flow	<= 10 g/10 min @Load 10.0 kg, Temperature 380 Â°C	<= 10 g/10 min @Load 22.0 lb, Temperature 716 Â°F	

Mechanical Properties	Metric	English	Comments
Tensile Stress	155 MPa	22500 psi	
Elongation at Yield	2.0 %	2.0 %	
	3.0 %	3.0 %	flexural
Modulus of Elasticity	13.0 GPa	1890 ksi	
Flexural Strength	210 MPa	30500 psi	
Flexural Modulus	9.00 GPa	1310 ksi	
Charpy Impact Unnotched	3.00 J/cmÂ²	14.3 ft-lb/inÂ²	flatwise; ISO 179 1fU
	2.50 J/cmÂ² @Temperature -30.0 Â°C	11.9 ft-lb/inÂ² @Temperature -22.0 Â°F	ISO 179
Charpy Impact, Notched	0.700 J/cmÂ²	3.33 ft-lb/inÂ²	ISO 179 1eA
	0.700 J/cmÂ² @Temperature -30.0	3.33 ft-lb/inÂ² @Temperature -22.0	ISO 179 eA

Mechanical Properties	°C Metric	°F English	Comments
Coefficient of Friction, Dynamic	0.14	0.14	
Coefficient of Friction, Static	0.12	0.12	

Thermal Properties	Metric	English	Comments
CTE, linear	30.0 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	16.7 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	DIN 53752
Thermal Conductivity	0.450 W/m-K	3.12 BTU-in/hr-ft $\text{Å}^2\cdot\text{Å}^\circ\text{F}$	DIN 52612
Maximum Service Temperature, Air	250 $\text{Å}^\circ\text{C}$	482 $\text{Å}^\circ\text{F}$	
	280 $\text{Å}^\circ\text{C}$	536 $\text{Å}^\circ\text{F}$	short term
Deflection Temperature at 1.8 MPa (264 psi)	260 $\text{Å}^\circ\text{C}$	500 $\text{Å}^\circ\text{F}$	
Vicat Softening Point	300 $\text{Å}^\circ\text{C}$	572 $\text{Å}^\circ\text{F}$	DIN ISO 306
Flammability, UL94	V-0	V-0	not recognized by UL

Electrical Properties	Metric	English	Comments
Surface Resistance	$\leq 1.00\text{e}+7$ ohm	$\leq 1.00\text{e}+7$ ohm	
Insulation Resistance	$\leq 1.00\text{e}+8$ ohm	$\leq 1.00\text{e}+8$ ohm	

Processing Properties	Metric	English	Comments
Processing Temperature	390 $\text{Å}^\circ\text{C}$	734 $\text{Å}^\circ\text{F}$	mass temp
Nozzle Temperature	360 - 380 $\text{Å}^\circ\text{C}$	680 - 716 $\text{Å}^\circ\text{F}$	
Zone 1	360 - 370 $\text{Å}^\circ\text{C}$	680 - 698 $\text{Å}^\circ\text{F}$	
Zone 2	380 - 390 $\text{Å}^\circ\text{C}$	716 - 734 $\text{Å}^\circ\text{F}$	
Zone 3	390 - 400 $\text{Å}^\circ\text{C}$	734 - 752 $\text{Å}^\circ\text{F}$	
Mold Temperature	170 - 200 $\text{Å}^\circ\text{C}$	338 - 392 $\text{Å}^\circ\text{F}$	
Drying Temperature	120 $\text{Å}^\circ\text{C}$	248 $\text{Å}^\circ\text{F}$	or
	@Time 21600 - 28800 sec	@Time 6.00 - 8.00 hour	
Drying Temperature	150 $\text{Å}^\circ\text{C}$	302 $\text{Å}^\circ\text{F}$	Dehumidifying dryer
	@Time 10800 - 21600 sec	@Time 3.00 - 6.00 hour	

Descriptive Properties	Value	Comments
Color	natural color (black)	

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