

## Lehmann & Voss LUVOCOM<sup>®</sup> 1105/CF/30/EM PEEK, with carbon fiber

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

### Material Notes:

Applications: Automotive industry, textile machinery, medical- and precision engineering, aircraft industry. High-strength and high-stiff parts; low coefficient of expansion. Dynamic stressed parts at high movement velocity. Chemical and hydrolysis resistance parts, non flammable. Electrically conductive, suitable for continuous discharging of statically generated electricity. 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-1105CF30EM-PEEK-with-carbon-fiber.php](http://www.lookpolymers.com/polymer_Lehmann-Voss-LUVOCOM-1105CF30EM-PEEK-with-carbon-fiber.php)

Physical Properties	Metric	English	Comments
Specific Gravity	1.42 g/cc	1.42 g/cc	ISO 1183
Water Absorption	<= 0.10 %	<= 0.10 %	23°C/24h
Linear Mold Shrinkage	0.00050 - 0.0020 cm/cm	0.00050 - 0.0020 in/in	

Mechanical Properties	Metric	English	Comments
Tensile Stress	245 MPa	35500 psi	
Elongation at Yield	1.6 %	1.6 %	
	2.0 %	2.0 %	flexural
Modulus of Elasticity	27.0 GPa	3920 ksi	
Flexural Strength	370 MPa	53700 psi	
Flexural Modulus	23.0 GPa	3340 ksi	
Charpy Impact Unnotched	2.50 J/cm <sup>2</sup>	11.9 ft-lb/in <sup>2</sup>	flatwise; ISO 179 1fU
	2.00 J/cm <sup>2</sup>	9.52 ft-lb/in <sup>2</sup>	ISO 179
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Charpy Impact, Notched	0.800 J/cm <sup>2</sup>	3.81 ft-lb/in <sup>2</sup>	ISO 179 1eA
	0.800 J/cm <sup>2</sup>	3.81 ft-lb/in <sup>2</sup>	ISO 179 eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	
Coefficient of Friction, Dynamic	0.23	0.23	
Coefficient of Friction, Static	0.18	0.18	

Thermal Properties	Metric	English	Comments
CTE, linear	9.00 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	5.00 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	DIN 53752
Thermal Conductivity	0.600 W/m-K	4.16 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	325 $\text{Å}^\circ\text{C}$	617 $\text{Å}^\circ\text{F}$	DIN ISO 306
Flammability, UL94	V-0	V-0	not recognized by UL

Electrical Properties	Metric	English	Comments
Surface Resistance	$\leq 10000$ ohm	$\leq 10000$ ohm	
Insulation Resistance	$\leq 100000$ ohm	$\leq 100000$ 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 $\text{Å}^\circ\text{C}$ @Time 21600 - 28800 sec	248 $\text{Å}^\circ\text{F}$ @Time 6.00 - 8.00 hour	or
	150 $\text{Å}^\circ\text{C}$ @Time 10800 - 21600 sec	302 $\text{Å}^\circ\text{F}$ @Time 3.00 - 6.00 hour	Dehumidifying dryer

Descriptive Properties	Value	Comments
Color	natural color (black)	

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