Edgetek™ PK-10GF/000

Polyetheretherketone

Key Characteristics

Product Description
The Edgetek® Engineering Thermoplastic Compounds portfolio covers a broad range of standard and custom-formulated high performance materials. This portfolio includes high-temperature materials for elevated service temperature environments, high-modulus / structural materials for load-bearing and high-strength applications and flame-retardant products. These compounds are based on select engineering thermoplastic resins that are compounded with reinforcing additives such as carbon fiber, glass fiber and glass beads.

General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 10% Filler by Weight		
Features	• General Purpose	• High Heat Resistance	
Uses	• Automotive Applications • Consumer Applications	• General Purpose • Industrial Applications	
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.39	1.39	ASTM D792
Molding Shrinkage - Flow	4.0E-3 to 5.0E-3 in/in	0.40 to 0.50 %	ASTM D955
Water Absorption (24 hr, 0.125 in (3.18 mm))	0.20 %	0.20 %	ASTM D570
Mechanical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Modulus [2]	800000 psi	5520 MPa	ASTM D638
Tensile Strength [2] (Yield)	18000 psi	124 MPa	ASTM D638
Tensile Elongation [2] (Break)	4.0 to 5.0 %	4.0 to 5.0 %	ASTM D638
Flexural Modulus	750000 psi	5170 MPa	ASTM D790
Flexural Strength	28000 psi	193 MPa	ASTM D790
Impact	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Notched Izod Impact			ASTM D256A
73°F (23°C), 0.125 in (3.18 mm), Injection Molded	1.4 ft·lb/in	75 J/m	
Thermal	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed, 0.125 in (3.18 mm)	410 °F	210 °C	

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Processing (Melt) Temp	710 to 730 °F	377 to 388 °C

Notes

[1] Typical values are not to be construed as specifications.

[2] Type I, 0.20 in/min (5.1 mm/min)

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