Edgetek™ PI-30GF/000R BLACK

Polyether Imide

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, 30% Filler by Weight		
Features	• Amorphous • Chemical Resistant	• Good Dimensional Stability • High Heat Resistance	• High Rigidity
Uses	• Aerospace Applications • Aircraft Applications	• Automotive Applications • High Temperature Applications	• Industrial Applications
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.50	1.50	ASTM D792
Molding Shrinkage - Flow (0.125 in (3.18 mm))	1.0E-3 to 3.0E-3 in/in	0.10 to 0.30 %	ASTM D955
Molding Shrinkage - Across Flow (0.125 in (3.18 mm))	8.0E-3 to 9.0E-3 in/in	0.80 to 0.90 %	ASTM D955
Mechanical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Modulus [2]	1.44E+6 psi	9960 MPa	ASTM D638
Tensile Strength [2] (Break)	22700 psi	157 MPa	ASTM D638
Tensile Elongation (Break)	2.0 to 3.0 %	2.0 to 3.0 %	ASTM D638
Flexural Modulus [3]	1.30E+6 psi	8960 MPa	ASTM D790
Flexural Strength [3]	32000 psi	221 MPa	ASTM D790
Impact	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Notched Izod Impact	1.2 ft·lb/in	64 J/m	ASTM D256
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)	394 °F	201 °C	
Flammability	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Flame Rating (0.06 in (1.5 mm))	V-0	V-0	UL 94

Notes

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

[2] 0.20 in/min (5.1 mm/min)

[3] 0.050 in/min (1.3 mm/min)

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