



Edgetek™ PA-45GF/000 BK005

Polyamide

Key Characteristics

General	
Material Status	• Commercial: Active
Regional Availability	• Asia Pacific
Filler / Reinforcement	• Glass Fiber, 45% Filler by Weight
Appearance	• Black
Processing Method	• Injection Molding

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	1.49	1.49	ASTM D792
Molding Shrinkage - Flow	2.0E-3 to 5.0E-3 in/in	0.20 to 0.50 %	ASTM D955
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength ²	23200 psi	160 MPa	ASTM D638
Flexural Modulus ³	1.60E+6 psi	11000 MPa	ASTM D790
Flexural Strength ³	43500 psi	300 MPa	ASTM D790
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact 73°F (23°C), 0.126 in (3.20 mm)	2.6 ft·lb/in	140 J/m	ASTM D256
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed, 0.126 in (3.20 mm)	536 °F	280 °C	ASTM D648
Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Surface Resistivity	1.0E+15 ohms	1.0E+15 ohms	ASTM D257
Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating (0.06 in (1.6 mm))	HB	HB	UL 94

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	176 to 248 °F	80 to 120 °C
Drying Time	4.0 to 6.0 hr	4.0 to 6.0 hr
Rear Temperature	608 to 644 °F	320 to 340 °C
Middle Temperature	608 to 644 °F	320 to 340 °C
Front Temperature	608 to 644 °F	320 to 340 °C
Mold Temperature	248 to 275 °F	120 to 135 °C

Injection Notes
Injection Pressure: MED-HIGH
Hold Pressure: MED-HIGH
Screw Speed: MODERATE
Back Pressure: LOW

Notes

¹ Typical values are not to be construed as specifications.

² 0.20 in/min (5.0 mm/min)

³ 0.051 in/min (1.3 mm/min)