



Edgetek™ SF-40GF-25MN/000 HS Black

Polyphenylene Sulfide

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	• Europe
Filler / Reinforcement	• Glass/Mineral, 65% Filler by Weight
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density	1.88 to 1.92 g/cm ³	1.88 to 1.92 g/cm ³	ISO 1183
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus	2.68E+6 psi	18500 MPa	ISO 527-2
Tensile Stress	14500 psi	100 MPa	ISO 527-2
Tensile Strain (Break)	0.95 %	0.95 %	ISO 527-2
Flexural Modulus	2.18E+6 psi	15000 MPa	ISO 178
Flexural Stress	22500 psi	155 MPa	ISO 178
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Charpy Notched Impact Strength (73°F (23°C))	1.7 ft·lb/in ²	3.5 kJ/m ²	ISO 179
Charpy Unnotched Impact Strength 73°F (23°C)	6.4 ft·lb/in ²	14 kJ/m ²	ISO 179
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Heat Deflection Temperature 264 psi (1.8 MPa), Unannealed	514 °F	268 °C	ISO 75-2/A
Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Comparative Tracking Index	200 V	200 V	IEC 60112
Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating	V-0	V-0	UL 94
Glow Wire Flammability Index 0.12 in (3.0 mm)	1760 °F	960 °C	IEC 60695-2-12
FMVSS Flammability	< 3.9 in/min	< 100 mm/min	DIN 75200

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	248 °F	120 °C
Drying Time	4.0 hr	4.0 hr
Processing (Melt) Temp	599 to 644 °F	315 to 340 °C
Mold Temperature	275 to 311 °F	135 to 155 °C