



# Edgetek™ SF2-40CF/000 NATURAL

## 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	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Carbon Fiber, 40% Filler by Weight		
Features	• Chemical Resistant • High Heat Resistance	• High Rigidity • Linear Polymer Structure	• Semi Crystalline
Uses	• Aerospace Applications • Aircraft Applications	• Automotive Applications • High Temperature Applications	• Industrial Applications
Forms	• Pellets		
Processing Method	• Injection Molding		

### Technical Properties <sup>1</sup>

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	1.49	1.49	ASTM D792
Molding Shrinkage - Flow (0.125 in (3.18 mm))	2.0E-4 to 8.0E-4 in/in	0.020 to 0.080 %	ASTM D955
Molding Shrinkage - Across Flow (0.125 in (3.18 mm))	4.0E-4 to 8.0E-4 in/in	0.040 to 0.080 %	ASTM D955
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus <sup>2</sup>	4.43E+6 psi	30500 MPa	ASTM D638
Tensile Strength <sup>2</sup> (Break)	30000 psi	207 MPa	ASTM D638
Tensile Elongation <sup>2</sup> (Break)	1.0 to 2.0 %	1.0 to 2.0 %	ASTM D638
Flexural Modulus	3.74E+6 psi	25800 MPa	ASTM D790
Flexural Strength	41000 psi	283 MPa	ASTM D790
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact (Injection Molded)	0.70 ft·lb/in	37 J/m	ASTM D256
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed	522 °F	272 °C	ASTM D648
Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Surface Resistivity	1.0E+2 to 1.0E+4 ohms	1.0E+2 to 1.0E+4 ohms	ASTM D257
Volume Resistivity	1.0E+2 to 1.0E+4 ohms·cm	1.0E+2 to 1.0E+4 ohms·cm	ASTM D257

### Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Processing (Melt) Temp	580 to 630 °F	304 to 332 °C

**Notes**

<sup>1</sup> Typical values are not to be construed as specifications.

<sup>2</sup> 0.20 in/min (5.1 mm/min)

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