



# Edgetek™ XP9242701

## Polyphenylene Sulfide

### Key Characteristics

#### General

Material Status	• Commercial: Active
Regional Availability	• Asia Pacific
Filler / Reinforcement	• Carbon Fiber, 10% Filler by Weight • Glass Fiber, 30% Filler by Weight
Forms	• Pellets
Processing Method	• Injection Molding

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

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	1.65	1.65	ASTM D792
Molding Shrinkage - Flow	1.0E-3 to 3.0E-3 in/in	0.10 to 0.30 %	ASTM D955
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength	37400 psi	258 MPa	ASTM D638
Flexural Modulus	2.61E+6 psi	18000 MPa	ASTM D790
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Charpy Notched Impact Strength	1.12 ft-lb/in	60.0 J/m	ASTM D256
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed	509 °F	265 °C	ASTM D648
Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Surface Resistivity	< 1.0E+9 ohms	< 1.0E+9 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	266 to 302 °F	130 to 150 °C
Drying Time	4.0 to 6.0 hr	4.0 to 6.0 hr
Rear Temperature	518 to 536 °F	270 to 280 °C
Middle Temperature	554 to 626 °F	290 to 330 °C
Front Temperature	554 to 626 °F	290 to 330 °C
Nozzle Temperature	536 to 608 °F	280 to 320 °C
Mold Temperature	248 to 302 °F	120 to 150 °C
Injection Pressure	10200 to 14500 psi	70.0 to 100 MPa
Holding Pressure	7250 to 11600 psi	50.0 to 80.0 MPa
Back Pressure	145 to 363 psi	1.00 to 2.50 MPa
Screw Speed	80 to 120 rpm	80 to 120 rpm

#### Injection Notes

Injection Speed: 50 to 80%  
Holding Time: 3 to 9 sec  
Injection Time: 1 to 3 sec  
Cycle Time: 18 to 70 sec