



## Edgetek™ PF-20GF/000

### Polysulfone

#### 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 • Europe • Asia Pacific • Latin America
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight
RoHS Compliance	• RoHS Compliant
Forms	• Pellets

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

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.38	1.38	ASTM D792
Molding Shrinkage - Flow	• 3.0E-3 • 3.0E-3 to in/in 4.0E-3	• 0.30 • 0.30 to 0.40 %	ASTM D955
Water Absorption (24 hr)	0.20 %	0.20 %	ASTM D570
Water Absorption (Saturation)	0.60 %	0.60 %	ASTM D570
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus <sup>2</sup>	800000 psi	5520 MPa	ASTM D638
Tensile Strength <sup>2</sup> (Break)	15000 psi	103 MPa	ASTM D638
Tensile Elongation <sup>2</sup> (Break)	3.0 %	3.0 %	ASTM D638
Flexural Modulus	800000 psi	5520 MPa	ASTM D790
Flexural Strength	22000 psi	152 MPa	ASTM D790
Compressive Strength	20000 psi	138 MPa	ASTM D695
Shear Strength	9100 psi	62.7 MPa	ASTM D732
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact 73°F (23°C), 0.250 in (6.35 mm), Injection Molded	1.3 ft·lb/in	69 J/m	ASTM D256A
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Rockwell Hardness (M-Scale)	92	92	ASTM D785
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load 66 psi (0.45 MPa), Annealed, 0.125 in (3.18 mm)	365 °F	185 °C	ASTM D648
Deflection Temperature Under Load 264 psi (1.8 MPa), Annealed, 0.125 in (3.18 mm)	355 °F	179 °C	ASTM D648
CLTE - Flow	1.6E-5 in/in/°F	2.9E-5 cm/cm/°C	ASTM D696
Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Volume Resistivity	1.0E+16 ohms·cm	1.0E+16 ohms·cm	ASTM D257

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Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating	V-0	V-0	UL 94

## Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	275 °F	135 °C
Drying Time	2.0 hr	2.0 hr
Processing (Melt) Temp	640 to 700 °F	338 to 371 °C
Mold Temperature	200 to 300 °F	93.3 to 149 °C

## Notes

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

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

## CONTACT INFORMATION

## Americas

United States - Avon Lake  
+1 440 930 1000

United States - McHenry  
+1 815 385 8500

## Asia

China - Guangzhou  
+86 20 8732 7260

China - Shenzhen  
+86 755 2969 2888

China - Suzhou  
+86 512 6823 24 38

China - Suzhou  
+86 512 6265 2600

Hong Kong -  
+852 2690 5332

Taiwan - Yonghe City,  
+886 9396 99740, +886 2929 1849

## Europe

Germany - Gaggenau  
+49 7225 6802 0

Spain - Barbastro (Huesca)  
+34 974 310 314



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www.polyone.com

## PolyOne Americas

33587 Walker Road  
Avon Lake, Ohio 44012  
United States  
+1 440 930 1000  
+1 866 POLYONE

## PolyOne Asia

No. 88 Guoshoujing Road  
Z.J Hi-tech Park, Pudong  
Shanghai, 201203, China  
+86 21 5080 1188

## PolyOne Europe

6 Gällewee  
+352 269 050 35

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