



## Edgetek™ AS-20GF/000

### Acrylonitrile Butadiene Styrene

#### 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	• 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	1.18	1.18	ASTM D792
Molding Shrinkage - Flow	2.0E-3 to 3.0E-3 in/in	0.20 to 0.30 %	ASTM D955
Water Absorption (24 hr)	0.050 %	0.050 %	ASTM D570
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength <sup>2</sup> (Break)	10300 psi	70.7 MPa	ASTM D638
Tensile Elongation <sup>2</sup> (Break)	6.0 %	6.0 %	ASTM D638
Flexural Modulus	500000 psi	3450 MPa	ASTM D790
Flexural Strength	17000 psi	117 MPa	ASTM D790
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact			
73°F (23°C), 0.125 in (3.18 mm)	1.1 ft-lb/in	61 J/m	ASTM D256
73°F (23°C), 0.250 in (6.35 mm), Injection Molded	1.1 ft-lb/in	59 J/m	ASTM D256A
Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Rockwell Hardness (R-Scale)	107	107	ASTM D785
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi (0.45 MPa), Annealed, 0.125 in (3.18 mm)	210 °F	98.9 °C	
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Annealed, 0.125 in (3.18 mm)	196 °F	91.1 °C	
CLTE - Flow	2.0E-5 in/in/°F	3.6E-5 cm/cm/°C	ASTM D696
Thermal Conductivity	1.4 Btu·in/hr/ft²/°F	0.20 W/m/K	ASTM C177
Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Surface Resistivity	1.0E+14 ohms	1.0E+14 ohms	ASTM D257
Volume Resistivity	1.0E+14 ohms·cm	1.0E+14 ohms·cm	ASTM D257
Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating	HB	HB	UL 94

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## Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	176 to 185 °F	80.0 to 85.0 °C
Drying Time	2.0 hr	2.0 hr
Processing (Melt) Temp	430 to 480 °F	221 to 249 °C
Mold Temperature	149 to 185 °F	65.0 to 85.0 °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)

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