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 [1]

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 [2] (Break)	10300 psi	70.7 MPa	ASTM D638
Tensile Elongation [2] (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

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

[1] Typical values are not to be construed as specifications.

[2] Type I, 0.20 in/min (5.1 mm/min)

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