



Edgetek™ ET3500-5002 BK

Acrylonitrile Styrene Acrylate + PC

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	• Europe
Filler / Reinforcement	• Glass Fiber, 12% Filler by Weight
Features	• Low Warpage
RoHS Compliance	• RoHS Compliant
Forms	• Pellets

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density ² (73°F (23°C))	1.23 g/cm ³	1.23 g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (300°C/2.16 kg)	17 to 22 g/10 min	17 to 22 g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (300°C/21.6 kg)	0.793 to 0.976 in ³ /10min	13.0 to 16.0 cm ³ /10min	ISO 1133
Molding Shrinkage - Flow	1.0E-3 to 2.0E-3 in/in	0.10 to 0.20 %	ASTM D955
Water Absorption (24 hr)	0.15 %	0.15 %	ASTM D570
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus 73°F (23°C), 0.157 in (4.00 mm), Injection Molded	856000 psi	5900 MPa	ISO 527-2/1
Tensile Stress Break, 73°F (23°C), 0.157 in (4.00 mm), Injection Molded	14500 psi	100 MPa	ISO 527-2/50
Tensile Strain Break, 73°F (23°C), 0.157 in (4.00 mm), Injection Molded	2.2 %	2.2 %	ISO 527-2/50
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Charpy Notched Impact Strength 73°F (23°C), Injection Molded	3.8 ft·lb/in ²	8.0 kJ/m ²	ISO 179
Charpy Unnotched Impact Strength 73°F (23°C), Injection Molded	18 ft·lb/in ²	37 kJ/m ²	ISO 179
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+15 ohms·cm	> 1.0E+15 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	248 °F	120 °C
Drying Time	3.0 to 4.0 hr	3.0 to 4.0 hr
Processing (Melt) Temp	536 to 608 °F	280 to 320 °C
Mold Temperature	180 to 230 °F	82.0 to 110 °C

Notes

¹ Typical values are not to be construed as specifications.

² ±0.02

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