



Edgetek™ ET6000-5023 natural Polyamide 6 Alloy

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
Features	• Good Mold Release • High Impact Resistance
Uses	• General Purpose
RoHS Compliance	• RoHS Compliant
Forms	• Pellets
Processing Method	• Injection Molding

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density (73°F (23°C))	1.05 g/cm ³	1.05 g/cm ³	ISO 1183
Molding Shrinkage - Flow ² 73°F (23°C), 0.157 in (4.00 mm)	1.6 to 2.3 %	1.6 to 2.3 %	Internal Method
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus 73°F (23°C), 0.157 in (4.00 mm), Injection Molded	174000 psi	1200 MPa	ISO 527-2/1
Tensile Stress Yield, 73°F (23°C), 0.157 in (4.00 mm), Injection Molded	5220 psi	36.0 MPa	ISO 527-2/50
Tensile Strain Yield, 73°F (23°C), 0.157 in (4.00 mm), Injection Molded	5.8 %	5.8 %	ISO 527-2/50
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Charpy Notched Impact Strength -22°F (-30°C) 73°F (23°C)	11 ft·lb/in ² 45 ft·lb/in ²	24 kJ/m ² 95 kJ/m ²	ISO 179
Charpy Unnotched Impact Strength -22°F (-30°C) 73°F (23°C)	No Break No Break	No Break No Break	ISO 179

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	176 °F	80 °C
Drying Time	4.0 hr	4.0 hr
Rear Temperature	464 °F	240 °C
Middle Temperature	464 °F	240 °C
Front Temperature	482 °F	250 °C

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Injection	Typical Value (English)	Typical Value (SI)
Nozzle Temperature	500 °F	260 °C
Mold Temperature	176 °F	80 °C
Injection Rate	Moderate	Moderate

Notes

¹ Typical values are not to be construed as specifications.

² PolyOne Method

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