



# Edgetek™ NL-20GF/000 BLACK

## Polyamide 612

### 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		
Features	• Chemical Resistant • Good Stability	• Low to No Water Absorption • Semi Crystalline	
Uses	• Aerospace Applications • Appliance Components • Automotive Applications	• Electrical/Electronic Applications • Housings • Industrial Applications	• Marine Applications • Sporting Goods
RoHS Compliance	• RoHS Compliant		
Forms	• Pellets		

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

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	1.20	1.20	ASTM D792
Molding Shrinkage - Flow (0.125 in (3.18 mm))	4.0E-3 to 5.0E-3 in/in	0.40 to 0.50 %	ASTM D955
Water Absorption (24 hr)	0.20 %	0.20 %	ASTM D570
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus <sup>2</sup>	900000 psi	6210 MPa	ASTM D638
Tensile Strength <sup>2</sup> (Break)	16000 psi	110 MPa	ASTM D638
Tensile Elongation (Break)	5.0 %	5.0 %	ASTM D638
Flexural Modulus <sup>3</sup>	750000 psi	5170 MPa	ASTM D790
Flexural Strength <sup>3</sup>	26000 psi	179 MPa	ASTM D790
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact (Injection Molded)	1.0 ft·lb/in	53 J/m	ASTM D256
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load 66 psi (0.45 MPa), Unannealed	403 °F	206 °C	ASTM D648
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed	365 °F	185 °C	ASTM D648

## Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	180 °F	82 °C
Drying Time	4.0 to 6.0 hr	4.0 to 6.0 hr
Suggested Max Moisture	0.10 to 0.20 %	0.10 to 0.20 %
Rear Temperature	510 to 530 °F	266 to 277 °C
Middle Temperature	520 to 540 °F	271 to 282 °C
Front Temperature	530 to 550 °F	277 to 288 °C
Nozzle Temperature	540 to 560 °F	282 to 293 °C
Mold Temperature	120 to 160 °F	49 to 71 °C

## Notes

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

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

<sup>3</sup> 0.050 in/min (1.3 mm/min)



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