



## Nymax™ ND633 GF Black

### Polyamide 6

#### Key Characteristics

##### Product Description

The Nymax® GF 600 Series of glass fiber-reinforced nylon 6 compounds have been specifically engineered for applications requiring high stiffness, tensile strength, and toughness, while providing enhanced surface appearance versus nylon 6/6 compounds. These materials are available in a broad range of reinforcement levels depending upon stiffness characteristics desired and have been formulated to offer ease of processing in most standard thermoplastic processing equipment.

##### General

Material Status	• Commercial: Active
Regional Availability	• Latin America • North America
Filler / Reinforcement	• Glass Fiber, 33% Filler by Weight
Additive	• Heat Stabilizer
Recycled Content	• Yes
Features	• General Purpose • Heat Stabilized • Industrial Resin
Uses	• Automotive Applications • Consumer Applications • Industrial Applications • Construction Applications • General Purpose
Appearance	• Black
Forms	• Pellets
Processing Method	• Injection Molding

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

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.38	1.38	ASTM D792
Molding Shrinkage - Flow	1.5E-3 to 4.5E-3 in/in	0.15 to 0.45 %	ASTM D955
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength <sup>2</sup> (Break)	19000 psi	131 MPa	ASTM D638
Tensile Elongation <sup>2</sup> (Yield)	2.0 %	2.0 %	ASTM D638
Flexural Modulus	1.20E+6 psi	8270 MPa	ASTM D790
Flexural Strength	30000 psi	207 MPa	ASTM D790
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact			ASTM D256A
73°F (23°C), 0.125 in (3.18 mm), Injection Molded	1.2 ft-lb/in	64 J/m	
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Unannealed, 0.125 in (3.18 mm)	392 °F	200 °C	
Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating (0.06 in (1.5 mm), Black)	HB	HB	UL 94
Additional Information			
Molded Test Bars: Dry as Molded			

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## Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	180 °F	82.2 °C
Drying Time	4.0 hr	4.0 hr
Suggested Max Moisture	0.10 to 0.20 %	0.10 to 0.20 %
Rear Temperature	430 to 480 °F	221 to 249 °C
Middle Temperature	460 to 510 °F	238 to 266 °C
Front Temperature	470 to 540 °F	243 to 282 °C
Nozzle Temperature	465 to 535 °F	241 to 279 °C
Mold Temperature	120 to 200 °F	48.9 to 93.3 °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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