



Nymax™ ND 1233 GF Black

Polyamide 66

Key Characteristics

Product Description

The Nymax® GF 1200 Series of glass fiber-reinforced nylon 6/6 compounds have been specifically formulated for applications requiring high stiffness, tensile properties, heat resistance, and durability in harsh environments. 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	• North America	• South America	
Filler / Reinforcement	• Glass Fiber Reinforcement, 33% Filler by Weight		
Additive	• Heat Stabilizer		
Features	• General Purpose	• Heat Stabilized	• Industrial Resin
Uses	• Automotive Applications • Construction Applications	• Consumer Applications • General Purpose	• Industrial Applications
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties ¹

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.39	1.39 g/cm ³	ASTM D792
Density	1.40 g/cm ³	1.40 g/cm ³	ISO 1183
Molding Shrinkage - Flow	0.0020 to 0.0040 in/in	0.20 to 0.40 %	ASTM D955
Water Absorption (24 hr, 0.125 in (3.18 mm))	1.0 %	1.0 %	ASTM D570
Water Absorption (73°F (23°C), 24 hr)	1.0 %	1.0 %	ISO 62
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Stress (Yield)	19600 psi	135 MPa	ISO 527-2
Tensile Strength ² (Break)	21000 psi	145 MPa	ASTM D638
Tensile Elongation ² (Break)	2.0 %	2.0 %	ASTM D638
Tensile Strain (Break)	2.0 to 4.0 %	2.0 to 4.0 %	ISO 527-2
Flexural Modulus	1.31E+6 psi	9000 MPa	ASTM D790
Flexural Modulus	1.31E+6 psi	9000 MPa	ISO 178
Flexural Strength	33400 psi	230 MPa	ASTM D790
Flexural Strength	33400 psi	230 MPa	ISO 178
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	
Notched Izod Impact Strength (73°F (23°C))	2.9 ft-lb/in ²	6.0 kJ/m ²	ISO 180
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)	446 °F	230 °C	

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Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Heat Deflection Temperature 264 psi (1.8 MPa), Unannealed	464 °F	240 °C	ISO 75-2/A
Peak Melting Temperature	500 °F	260 °C	ASTM D789
Melting Temperature (DSC)	500 °F	260 °C	ISO 3146
Additional Information			
Molded Test Bars: Dry as Molded			

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	180 °F	82.2 °C
Drying Time	4.0 hr	4.0 hr
Mold Temperature	140 to 225 °F	60.0 to 107 °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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