Nymax™ GF 1200 A 33 HS Black 22

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	
Uses	• Automotive Applications • Construction Applications	• Consumer Applications • General Purpose	• Industrial Applications
Automotive Specifications	• FORD ESE-M4D287-B	• GM GMP.PA66.013	
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)		Typical Value (SI)		Test Method
Specific Gravity	1.38		1.38		ASTM D792
Density	1.40	g/cm³	1.40	g/cm³	ISO 1183
Molding Shrinkage - Flow	0.0020 to 0.0040	in/in	0.20 to 0.40	%	ASTM D955
Molding Shrinkage	0.20 to 0.40	%	0.20 to 0.40	%	ISO 2577
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 Modulus	1.25E+6	psi	8620	MPa	ASTM D638
Tensile Modulus	9500	psi	65.5	MPa	ISO 527-2
Tensile Stress (Yield)	165	psi	1.14	MPa	ISO 527-2
Tensile Strength [2] (Break)	28000	psi	193	MPa	ASTM D638
Tensile Elongation [2] (Break)	3.0 to 4.0	%	3.0 to 4.0	%	ASTM D638
Tensile Strain (Break)	3.0	%	3.0	%	ISO 527-2
Flexural Modulus	1.25E+6	psi	8620	MPa	ASTM D790
Flexural Modulus	9000	psi	62.1	MPa	ISO 178
Flexural Strength	36000	psi	248	MPa	ASTM D790
Flexural Strength	240	psi	1.65	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	2.00	ft·lb/in	107	J/m	
Notched Izod Impact Strength	7.50	ft·lb/in²	15.8	kJ/m²	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)	473 °F	245 °C	
Heat Deflection Temperature			ISO 75-2/A
264 psi (1.8 MPa), Annealed	464 °F	240 °C	
Additional Properties			
Molded Test Bars: Dry as Molded			

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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