Nymax™ GF 600 A 33 Natural

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	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber, 33% Filler by Weight		
Features	• General Purpose		
Uses	• Automotive Applications • Construction Applications	• Consumer Applications • General Purpose	• Industrial Applications
Automotive Specifications	• CHRYSLER MS-DB-41 CPN4338, CPN2625 Color: Non-matched Color, 100% Color Match • GM GMP.PA6.045 Color: Natural		
Appearance	• Natural Color		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Specific Gravity	1.39	1.39	ASTM D792
Density	1.39 g/cm³	1.39 g/cm³	ISO 1183
Molding Shrinkage - Flow	1.0E-3 to 3.0E-3 in/in	0.10 to 0.30 %	ASTM D955
Mechanical	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Modulus	291000 psi	2000 MPa	ISO 527
Tensile Strength [2] (Yield)	23900 psi	165 MPa	ASTM D638
Tensile Strength (Break)	26100 psi	180 MPa	ISO 527
Tensile Elongation [2] (Yield)	4.0 %	4.0 %	ASTM D638
Tensile Elongation (Break)	12 %	12 %	ISO 527
Flexural Modulus			
--	1.26E+6 psi	8700 MPa	ASTM D790
--	1.35E+6 psi	9310 MPa	ISO 178
Flexural Strength			
--	37700 psi	260 MPa	ASTM D790
--	37700 psi	260 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	2.5 ft·lb/in	130 J/m	
Notched Izod Impact Strength (Partial Break)	7.2 ft·lb/in²	15 kJ/m²	ISO 180

Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load			ASTM D648
264 psi (1.8 MPa), Annealed, 0.125 in (3.18 mm)	399 °F	204 °C	
Heat Deflection Temperature			ISO 75-2/A
264 psi (1.8 MPa), Annealed	396 °F	202 °C	
Melting Temperature	428 °F	220 °C	ASTM D789
Flammability	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Flame Rating (0.06 in (1.6 mm))	HB	HB	UL 94
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
Suggested Max Moisture	0.060 to 0.12 %	0.060 to 0.12 %
Rear Temperature	480 to 530 °F	249 to 277 °C
Middle Temperature	500 to 550 °F	260 to 288 °C
Front Temperature	520 to 570 °F	271 to 299 °C
Nozzle Temperature	515 to 565 °F	268 to 296 °C
Mold Temperature	150 to 230 °F	65.6 to 110 °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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