



# Nymax™ GMF 604 40 UV BLACK 28

## Polyamide 6

### Key Characteristics

#### Product Description

The Nymax® 600 Series of mineral-reinforced nylon 6 compounds have been specifically developed to provide an excellent balance of physical property performance and durability, with improved surface appearance. These materials 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 • North America
Filler / Reinforcement	• Glass\Mineral, 40% Filler by Weight
Features	• UV Resistant
Automotive Specifications	• FORD WSS-M4D822-A2 Color: YGYA Black
Appearance	• Black
Processing Method	• Injection Molding

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

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density / Specific Gravity	1.51	1.51	ASTM D792
Molding Shrinkage - Flow	2.0E-3 to 5.0E-3 in/in	0.20 to 0.50 %	ASTM D955
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Strength <sup>2</sup>	19600 psi	135 MPa	ASTM D638
Flexural Modulus <sup>3</sup>	1.40E+6 psi	9650 MPa	ASTM D790
Flexural Strength <sup>3</sup>	31900 psi	220 MPa	ASTM D790
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact 73°F (23°C), 0.126 in (3.20 mm)	1.2 ft-lb/in	64 J/m	ASTM D256
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Deflection Temperature Under Load 264 psi (1.8 MPa), Unannealed, 0.126 in (3.20 mm)	374 °F	190 °C	ASTM D648
Electrical	Typical Value (English)	Typical Value (SI)	Test Method
Surface Resistivity	1.0E+15 ohms	1.0E+15 ohms	ASTM D257

### Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Drying Temperature	180 °F	82 °C
Drying Time	4.0 hr	4.0 hr
Suggested Max Moisture	0.10 to 0.20 %	0.10 to 0.20 %
Rear Temperature	500 to 530 °F	260 to 277 °C
Middle Temperature	525 to 550 °F	274 to 288 °C
Front Temperature	525 to 550 °F	274 to 288 °C
Nozzle Temperature	525 to 550 °F	274 to 288 °C
Mold Temperature	120 to 200 °F	49 to 93 °C

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**Injection Notes**

Injection Pressure: MED-HIGH  
 Hold Pressure: MED-HIGH  
 Screw Speed: MODERATE  
 Back Pressure: LOW

**Notes**

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

<sup>2</sup> 0.20 in/min (5.0 mm/min)

<sup>3</sup> 0.051 in/min (1.3 mm/min)

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