



# Nymax™ GMF 604 40 UV Black 115 1 X 1 Polyamide 6

## Key Characteristics

Product Description	
Glass fiber and mineral reinforced PA6 compound with UV resistant	
General	
Material Status	• Commercial: Active
Regional Availability	• Latin America • North America
Filler / Reinforcement	• Glass\Mineral, 40% Filler by Weight
Additive	• Heat Stabilizer • UV Stabilizer
Features	• General Purpose • Heat Stabilized
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	1.48	1.48	ASTM D792
Density	1.48 g/cm <sup>3</sup>	1.48 g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage	0.30 to 0.40 %	0.30 to 0.40 %	ASTM D955
Water Absorption (24 hr, 0.125 in (3.18 mm))	0.80 %	0.80 %	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	1.10E+6 psi	7580 MPa	ASTM D638
Tensile Modulus	1.13E+6 psi	7800 MPa	ISO 527-2
Tensile Strength <sup>2</sup> (Yield)	17000 psi	117 MPa	ASTM D638
Tensile Stress (Yield)	14500 psi	100 MPa	ISO 527-2
Tensile Strength <sup>2</sup> (Break)	15000 psi	103 MPa	ASTM D638
Tensile Elongation <sup>2</sup> (Break)	2.0 to 3.0 %	2.0 to 3.0 %	ASTM D638
Tensile Strain (Break)	3.0 %	3.0 %	ISO 527-2
Flexural Modulus	1.05E+6 psi	7240 MPa	ASTM D790
Flexural Modulus	1.09E+6 psi	7500 MPa	ISO 178
Flexural Strength	25000 psi	172 MPa	ASTM D790
Flexural Stress	26100 psi	180 MPa	ISO 178
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Notched Izod Impact 73°F (23°C), 0.125 in (3.18 mm), Injection Molded	1.2 ft·lb/in	64 J/m	ASTM D256A
Notched Izod Impact Strength	5.8 ft·lb/in <sup>2</sup>	12 kJ/m <sup>2</sup>	ISO 180
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Heat Deflection Temperature 264 psi (1.8 MPa), Annealed	374 °F	190 °C	ISO 75-2/A
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	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	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)

## CONTACT INFORMATION

## Americas

United States - Avon Lake  
+1 440 930 1000

United States - McHenry  
+1 815 385 8500

## Asia

China - Guangzhou  
+86 20 8732 7260

China - Shenzhen  
+86 755 2969 2888

China - Suzhou  
+86 512 6823 24 38

China - Suzhou  
+86 512 6265 2600

Hong Kong -  
+852 2690 5332

Taiwan - Yonghe City,  
+886 9396 99740, +886 2929 1849

## Europe

Germany - Gaggenau  
+49 7225 6802 0

Spain - Barbastro (Huesca)  
+34 974 310 314



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www.polyone.com

## PolyOne Americas

33587 Walker Road  
Avon Lake, Ohio 44012  
United States  
+1 440 930 1000  
+1 866 POLYONE

## PolyOne Asia

No. 88 Guoshoujing Road  
Z.J Hi-tech Park, Pudong  
Shanghai, 201203, China  
+86 21 5080 1188

## PolyOne Europe

6 Gälllewee  
+352 269 050 35

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