



# Nymax™ GMF 604 40 UV Black 148

## 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	
Automotive Specifications	• CHRYSLER MS-DB-41 CPN3916		
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	1.49 g/cm <sup>3</sup>	1.49 g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage	0.20 to 0.40 %	0.20 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	1.20E+6 psi	8270 MPa	ASTM D638
Tensile Modulus	1.23E+6 psi	8500 MPa	ISO 527-2
Tensile Strength <sup>2</sup> (Yield)	17500 psi	121 MPa	ASTM D638
Tensile Stress (Yield)	17000 psi	117 MPa	ISO 527-2
Tensile Strength <sup>2</sup> (Break)	17000 psi	117 MPa	ASTM D638
Tensile Elongation <sup>2</sup> (Break)	2.0 to 3.0 %	2.0 to 3.0 %	ASTM D638
Tensile Strain (Break)	2.5 %	2.5 %	ISO 527-2
Flexural Modulus	1.10E+6 psi	7580 MPa	ASTM D790
Flexural Modulus	1.22E+6 psi	8400 MPa	ISO 178
Flexural Strength	26000 psi	179 MPa	ASTM D790
Flexural Stress	27600 psi	190 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	1.3 ft·lb/in	69 J/m	
Notched Izod Impact Strength	6.0 ft·lb/in <sup>2</sup>	13 kJ/m <sup>2</sup>	ISO 180
Thermal	Typical Value (English)	Typical Value (SI)	Test Method
Heat Deflection Temperature			ISO 75-2/A
264 psi (1.8 MPa), Annealed	383 °F	195 °C	

Copyright © 2015 PolyOne Corporation. PolyOne makes no representations, guarantees, or warranties of any kind with respect to the Information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the Information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. Values reported as "typical" or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications. Processing conditions can cause material properties to shift from the values stated in the Information. PolyOne makes no warranties or guarantees respecting suitability of either PolyOne's products or the Information for your process or end-use application. You have the responsibility to conduct full-scale end-product performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the Information and/or use or handling of any product. POLYONE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, either with respect to the Information or products reflected by the Information. This data sheet shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.

## 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	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 1000United States - McHenry  
+1 815 385 8500

## Asia

China - Guangzhou  
+86 20 8732 7260China - Shenzhen  
+86 755 2969 2888China - Suzhou  
+86 512 6823 24 38China - Suzhou  
+86 512 6265 2600Hong Kong -  
+852 2690 5332Taiwan - Yonghe City,  
+886 9396 99740, +886 2929 1849

## Europe

Germany - Gaggenau  
+49 7225 6802 0Spain - Barbastro (Huesca)  
+34 974 310 314

Beyond Polymers.

Better Business Solutions. <sup>SM</sup>

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 Giällewee  
+352 269 050 35

Copyright ©, 2015 PolyOne Corporation. PolyOne makes no representations, guarantees, or warranties of any kind with respect to the Information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the Information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. Values reported as "typical" or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications. Processing conditions can cause material properties to shift from the values stated in the Information. PolyOne makes no warranties or guarantees respecting suitability of either PolyOne's products or the Information for your process or end-use application. You have the responsibility to conduct full-scale end-product performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the Information and/or use or handling of any product. POLYONE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, either with respect to the Information or products reflected by the Information. This data sheet shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.