# Nymax<sup>™</sup> GF 600 A 33 Black 28 V Polyamide 6

Polyamide 6 Avient Corporation



## **Technical Data**

## **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 · Commercial: Active Material Status Literature<sup>1</sup> Technical Datasheet Avient Corporation Search for UL Yellow Card Nymax<sup>™</sup> · Africa & Middle East Europe · North America Availability . Asia Pacific · Latin America Filler / Reinforcement · Glass Fiber, 33% Filler by Weight · General Purpose · Heat Stabilized Features · Automotive Applications Consumer Applications Uses · Industrial Applications · General Purpose Construction Applications Black Appearance Forms Pellets Injection Molding **Processing Method**

Physical	Nominal Value Unit	Test Method
Density / Specific Gravity	1.38 g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage - Flow	0.10 to 0.30 %	ASTM D955
Water Absorption (24 hr, 23°C)	1.0 %	ISO 62
Mechanical	Nominal Value Unit	Test Method
Tensile Modulus		
Injection Molded <sup>3, 4</sup>	6150 MPa	ASTM D638
Injection Molded <sup>3, 5</sup>	9870 MPa	ASTM D638
Injection Molded <sup>4</sup>	5630 MPa	ISO 527-1/1
Injection Molded <sup>5</sup>	9790 MPa	ISO 527-1/1
Tensile Strength		
Yield, Injection Molded <sup>3, 4</sup>	80.5 MPa	ASTM D638
Yield, Injection Molded <sup>3, 5</sup>	118 MPa	ASTM D638
Yield, Injection Molded <sup>4</sup>	79.1 MPa	ISO 527-2/2
Yield, Injection Molded <sup>5</sup>	123 MPa	ISO 527-2/2
Break, Injection Molded <sup>3, 4</sup>	80.8 MPa	ASTM D638
Break, Injection Molded <sup>3, 5</sup>	118 MPa	ASTM D638
Break, Injection Molded <sup>4</sup>	79.3 MPa	ISO 527-2/2
Break, Injection Molded <sup>5</sup>	122 MPa	ISO 527-2/2

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Mechanical	Nominal Value Unit	Test Method
Tensile Elongation		
Yield, Injection Molded <sup>3, 4</sup>	3.9 %	ASTM D638
Yield, Injection Molded <sup>3, 5</sup>	2.3 %	ASTM D638
Yield, Injection Molded <sup>4</sup>	3.7 %	ISO 527-2/2
Yield, Injection Molded <sup>5</sup>	2.2 %	ISO 527-2/2
Break, Injection Molded <sup>3, 4</sup>	6.1 %	ASTM D638
Break, Injection Molded <sup>3, 5</sup>	2.4 %	ASTM D638
Break, Injection Molded <sup>4</sup>	6.2 %	ISO 527-2/2
Break, Injection Molded <sup>5</sup>	2.3 %	ISO 527-2/2
Flexural Modulus		
Injection Molded <sup>6, 4</sup>	5010 MPa	ASTM D790
Injection Molded <sup>6, 5</sup>	8360 MPa	ASTM D790
Injection Molded <sup>7, 4</sup>	6630 MPa	ISO 178
Injection Molded <sup>7, 5</sup>	9850 MPa	ISO 178
Flexural Strength		
Injection Molded <sup>6, 4</sup>	130 MPa	ASTM D790
Injection Molded <sup>6, 5</sup>	191 MPa	ASTM D790
Injection Molded <sup>7, 4</sup>	154 MPa	ISO 178
Injection Molded <sup>7, 5</sup>	210 MPa	ISO 178
mpact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength		ISO 179
-40°C, Injection Molded <sup>4</sup>	9.5 kJ/m²	
-40°C, Injection Molded <sup>5</sup>	5.4 kJ/m <sup>2</sup>	
-30°C, Injection Molded <sup>4</sup>	7.8 kJ/m <sup>2</sup>	
-30°C, Injection Molded <sup>5</sup>	5.5 kJ/m²	
23°C, Injection Molded <sup>4</sup>	24 kJ/m <sup>2</sup>	
23°C, Injection Molded <sup>5</sup>	9.0 kJ/m <sup>2</sup>	
Notched Izod Impact <sup>5</sup>		
-40°C, Injection Molded	59 J/m	ASTM D256
-30°C, Injection Molded	67 J/m	ASTM D256
23°C, Injection Molded	110 J/m	ASTM D256
-40°C, Injection Molded	5.7 kJ/m²	ISO 180
-30°C, Injection Molded	5.8 kJ/m²	ISO 180
23°C, Injection Molded	10 kJ/m²	ISO 180
hermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load		
0.45 MPa, Unannealed	213 °C	ISO 75-2/B
1.8 MPa, Unannealed	193 °C	ISO 75-2/A
lammability	Nominal Value Unit	Test Method
Flame Rating		UL 94
0.79 mm	HB	
1.6 mm	HB	
3.2 mm	HB	

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#### Notes

<sup>1</sup> These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

- <sup>2</sup> Typical properties: these are not to be construed as specifications.
- <sup>3</sup> 5.1 mm/min
- <sup>4</sup> Conditioned
- <sup>5</sup> Dry as Molded
- <sup>6</sup> 1.3 mm/min
- 7 2.0 mm/min



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