# Nymax™ ND633 GF 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 | • Latin America | • North America | |
| Filler / Reinforcement | • Glass Fiber, 33% Filler by Weight | | |
| Features | • General Purpose | • Industrial Resin | |
| Uses | • Automotive Applications<br>• Construction Applications | • Consumer Applications<br>• General Purpose | • Industrial Applications |
| Appearance | • Natural Color | | |
| Forms | • Pellets | | |
| Processing Method | • Injection Molding | | |

## Technical Properties [1]

| Physical | Typical Value (English) | Typical Value (SI) | Test Method |
|---|---|---|---|
| Specific Gravity | 1.36 | 1.36 | ASTM D792 |
| Molding Shrinkage - Flow | 3.0E-3 in/in | 0.30 % | ASTM D955 |
| Water Absorption (24 hr) | 1.0 % | 1.0 % | ASTM D570 |
| **Mechanical** | **Typical Value (English)** | **Typical Value (SI)** | **Test Method** |
| Tensile Strength [2] (Yield) | 24000 psi | 165 MPa | ASTM D638 |
| Tensile Strength [2] (Break) | 22000 psi | 152 MPa | ASTM D638 |
| Tensile Elongation [2] (Yield) | 4.0 % | 4.0 % | ASTM D638 |
| Flexural Modulus | 1.20E+6 psi | 8270 MPa | ASTM D790 |
| Flexural Strength | 34000 psi | 234 MPa | ASTM D790 |
| **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 | 2.4 ft·lb/in | 130 J/m | |
| **Thermal** | **Typical Value (English)** | **Typical Value (SI)** | **Test Method** |
| Deflection Temperature Under Load | | | ASTM D648 |
| 264 psi (1.8 MPa), Unannealed, 0.125 in (3.18 mm) | 401 °F | 205 °C | |
| Melting Temperature | 428 °F | 220 °C | DSC |
| **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

[1] Typical values are not to be construed as specifications.

[2] 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

*Beyond Polymers.*

*Better Business Solutions.* SM

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