



## Nymax™ 600 A Natural

### Polyamide 6 Alloy

#### Key Characteristics

##### Product Description

The Nymax® 600 Blend Series of nylon 6 materials are "salt-and-pepper" pelletized blends combining select nylon resins and process aids, performance modifiers, and color concentrates. These materials have been formulated to provide improved melt processing, part performance, or surface appearance depending upon grade selected and are offered as an economical alternative to fully compounded products.

##### General

|                           |                                 |                         |                           |
|---------------------------|---------------------------------|-------------------------|---------------------------|
| Material Status           | • Commercial: Active            |                         |                           |
| Regional Availability     | • Latin America                 | • North America         |                           |
| Features                  | • General Purpose               |                         |                           |
| Uses                      | • Automotive Applications       | • Consumer Applications | • Industrial Applications |
|                           | • Construction Applications     | • General Purpose       |                           |
| Automotive Specifications | • GM GMP.PA6.033 Color: Natural |                         |                           |
| Appearance                | • Natural Color                 |                         |                           |
| Forms                     | • Pellets                       |                         |                           |
| Processing Method         | • Injection Molding             |                         |                           |

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

| Physical  | Typical Value (English)         | Typical Value (SI) | Test Method |
|---|---------------------------------|--------------------|-------------|
| Density / Specific Gravity  | 1.14                            | 1.14               | ASTM D792   |
| Molding Shrinkage - Flow  | 0.012 in/in                     | 1.2 %              | ASTM D955   |
| Water Absorption (24 hr, 0.125 in (3.18 mm))  | 1.6 %                           | 1.6 %              | ASTM D570   |
| Mechanical  | Typical Value (English)         | Typical Value (SI) | Test Method |
| Tensile Strength <sup>2</sup> (Break)   | 11300 psi                       | 77.9 MPa           | ASTM D638   |
| Tensile Elongation <sup>2</sup> (Break)   | 80 %                            | 80 %               | ASTM D638   |
| Flexural Modulus  | 390000 psi                      | 2690 MPa           | ASTM D790   |
| Flexural Strength   | 15000 psi                       | 103 MPa            | ASTM D790   |
| Impact  | Typical Value (English)         | Typical Value (SI) | Test Method |
| Notched Izod Impact<br>73°F (23°C), 0.125 in (3.18 mm),<br>Injection Molded               | 1.2 ft-lb/in                    | 64 J/m             | ASTM D256A  |
| Thermal   | Typical Value (English)         | Typical Value (SI) | Test Method |
| Deflection Temperature Under Load<br>66 psi (0.45 MPa), Unannealed, 0.125 in<br>(3.18 mm) | 302 °F                          | 150 °C             | ASTM D648   |
| Deflection Temperature Under Load<br>264 psi (1.8 MPa), Unannealed, 0.125 in<br>(3.18 mm) | 140 °F                          | 60.0 °C            | ASTM D648   |
| Melting Temperature   | 419 °F                          | 215 °C             | ASTM D789   |
| Additional Information  | Molded Test Bars: Dry as Molded |                    |             |

#### Processing Information

| Injection          | Typical Value (English) | Typical Value (SI) |
|--------------------|-------------------------|--------------------|
| Drying Temperature | 180 °F                  | 82 °C              |

**Nymax™ 600 A Natural****Technical Data Sheet**

| Injection        | Typical Value (English) | Typical Value (SI) |
|------------------|-------------------------|--------------------|
| Drying Time      | 4.0 hr                  | 4.0 hr             |
| Mold Temperature | 120 to 200 °F           | 49 to 93 °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)