

# Nymax<sup>™</sup> GF 1200 A 13 HS Natural Polyamide 66

## **Key Characteristics**

#### Product Description

The Nymax® GF 1200 Series of glass fiber-reinforced nylon 6/6 compounds have been specifically formulated for applications requiring high stiffness, tensile properties, heat resistance, and durability in harsh environments. 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

| Oeneral                |  |  |   |  |
|------------------------|--|--|---|--|
| Material Status        | Commercial: Active   |  |   |  |
| Regional Availability  | North America  | <ul> <li>South America</li> </ul>                                  |   |  |
| Filler / Reinforcement | <ul> <li>Glass Fiber Reinforcement, 13% Filler by Weight</li> </ul>            |  |   |  |
| Additive               | Heat Stabilizer  |  |   |  |
| Features               | General Purpose  | <ul> <li>Heat Stabilized</li> </ul>                                |   |  |
| Uses                   | <ul> <li>Automotive Applications</li> <li>Construction Applications</li> </ul> | <ul> <li>Consumer Applications</li> <li>General Purpose</li> </ul> | <ul> <li>Industrial Applications</li> </ul> |  |
| Appearance             | <ul> <li>Natural Color</li> </ul>  |  |   |  |
| Forms                  | Pellets  |  |   |  |
| Processing Method      | <ul> <li>Injection Molding</li> </ul>  |  |   |  |
|                        |  |  |   |  |

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

|  |                           | •                  |             |
|--|---------------------------|--------------------|-------------|
| Physical   | Typical Value (English)   | Typical Value (SI) | Test Method |
| Specific Gravity                                     | 1.22                      | 1.22               | ASTM D792   |
| Molding Shrinkage - Flow                             | 0.0050 to in/in<br>0.0070 | 0.50 to 0.70 %     | ASTM D955   |
| Water Absorption (24 hr, 0.125 in (3.18 mm))         | 1.0 %                     | 1.0 %              | ASTM D570   |
| Mechanical   | Typical Value (English)   | Typical Value (SI) | Test Method |
| Tensile Modulus                                      | 650000 psi                | 4480 MPa           | ASTM D638   |
| Tensile Strength <sup>2</sup> (Break)                | 17000 psi                 | 117 MPa            | ASTM D638   |
| Tensile Elongation <sup>2</sup> (Break)              | 3.0 %                     | 3.0 %              | ASTM D638   |
| Flexural Modulus                                     | 650000 psi                | 4480 MPa           | ASTM D790   |
| Flexural Strength                                    | 20000 psi                 | 138 MPa            | ASTM D790   |
| mpact  | Typical Value (English)   | Typical Value (SI) | Test Method |
| Notched Izod Impact                                  |                           |                    | ASTM D256A  |
| 73°F (23°C), 0.125 in (3.18 mm), Injection<br>Molded | 1.10 ft·lb/in             | 58.7 J/m           |             |
| hermal   | 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)    | 464 °F                    | 240 °C             |             |
| Additional Properties                                |                           |                    |             |
| Moldod Tost Bars: Dry as Moldod                      |                           |                    |             |

Molded Test Bars: Dry as Molded

#### 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)

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