



## Bergamid™ B70 G25 black

### Polyamide 6

#### Key Characteristics

| Product Description    |   |
|------------------------|---|
| 6016178                |   |
| General                |   |
| Material Status        | • Commercial: Active  |
| Regional Availability  | • Europe  |
| Filler / Reinforcement | • Glass Fiber, 25% Filler by Weight                                 |
| Features               | • Good Dimensional Stability • Good Stiffness • Good Surface Finish |
| RoHS Compliance        | • RoHS Compliant  |
| Forms                  | • Pellets   |
| Processing Method      | • Injection Molding   |

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

| Physical                                       | Typical Value (English)   | Typical Value (SI)   | Test Method |
|--|---------------------------|----------------------|-------------|
| Density / Specific Gravity <sup>2</sup>        | 1.32                      | 1.32                 | ISO 1183    |
| Molding Shrinkage <sup>3</sup>                 |                           |                      | ISO 294-4   |
| Across Flow : 73°F (23°C), 0.0787 in (2.00 mm) | 0.40 to 0.60 %            | 0.40 to 0.60 %       |             |
| Flow : 73°F (23°C), 0.0787 in (2.00 mm)        | 0.30 to 0.50 %            | 0.30 to 0.50 %       |             |
| Mechanical                                     | Typical Value (English)   | Typical Value (SI)   | Test Method |
| Tensile Modulus                                |                           |                      | ISO 527-2/1 |
| 73°F (23°C), 0.157 in (4.00 mm)                | 1.16E+6 psi               | 8000 MPa             |             |
| Tensile Strength <sup>4</sup>                  |                           |                      | ISO 527-2   |
| 73°F (23°C), 0.157 in (4.00 mm)                | 23200 psi                 | 160 MPa              |             |
| Tensile Elongation <sup>4</sup>                |                           |                      | ISO 527-2   |
| Break, 73°F (23°C), 0.157 in (4.00 mm)         | 3.5 %                     | 3.5 %                |             |
| Impact   | Typical Value (English)   | Typical Value (SI)   | Test Method |
| Charpy Notched Impact Strength                 |                           |                      | ISO 179     |
| -22°F (-30°C)                                  | 4.8 ft·lb/in <sup>2</sup> | 10 kJ/m <sup>2</sup> |             |
| 73°F (23°C)                                    | 5.7 ft·lb/in <sup>2</sup> | 12 kJ/m <sup>2</sup> |             |
| Charpy Unnotched Impact Strength               |                           |                      | ISO 179     |
| -22°F (-30°C)                                  | 36 ft·lb/in <sup>2</sup>  | 75 kJ/m <sup>2</sup> |             |
| 73°F (23°C)                                    | 38 ft·lb/in <sup>2</sup>  | 80 kJ/m <sup>2</sup> |             |
| Thermal  | Typical Value (English)   | Typical Value (SI)   | Test Method |
| Heat Deflection Temperature                    |                           |                      | ISO 75-2/B  |
| 66 psi (0.45 MPa), Unannealed                  | 428 °F                    | 220 °C               |             |
| Heat Deflection Temperature                    |                           |                      | ISO 75-2/A  |
| 264 psi (1.8 MPa), Unannealed                  | 410 °F                    | 210 °C               |             |
| Continuous Use Temperature                     | -22.0 to 212 °F           | -30.0 to 100 °C      |             |
| Melting Temperature                            | 433 °F                    | 223 °C               | DSC         |
| Electrical                                     | Typical Value (English)   | Typical Value (SI)   | Test Method |
| Comparative Tracking Index                     | 500 V                     | 500 V                | IEC 60112   |

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| Flammability      | Typical Value (English) | Typical Value (SI) | Test Method |
|-------------------|-------------------------|--------------------|-------------|
| Flame Rating      |                         |                    | UL 94       |
| 0.031 in (0.8 mm) | HB                      | HB                 |             |
| 0.06 in (1.6 mm)  | HB                      | HB                 |             |

### Processing Information

| Injection              | Typical Value (English) | Typical Value (SI) |
|------------------------|-------------------------|--------------------|
| Drying Temperature     | 176 °F                  | 80 °C              |
| Drying Time            | 3.0 to 4.0 hr           | 3.0 to 4.0 hr      |
| Processing (Melt) Temp | 464 to 509 °F           | 240 to 265 °C      |
| Mold Temperature       | 104 to 176 °F           | 40 to 80 °C        |

### Notes

<sup>1</sup> Typical values are not to be construed as specifications.

<sup>2</sup> ±0.03

<sup>3</sup> Bergmann method

<sup>4</sup> 0.20 in/min (5.0 mm/min)

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