



## Bergamid™ B650 G/Mi20 UF

### Polyamide 6

#### Key Characteristics

| General                |                                       |                |                                    |
|------------------------|---------------------------------------|----------------|------------------------------------|
| Material Status        | • Commercial: Active                  |                |                                    |
| Regional Availability  | • Africa & Middle East                | • Asia Pacific | • Europe                           |
| Filler / Reinforcement | • Glass\Mineral, 20% Filler by Weight |                |                                    |
| Features               | • Flame Retardant                     | • Halogen Free | • Low (to None) Phosphorus Content |
| RoHS Compliance        | • RoHS Compliant                      |                |                                    |
| Forms                  | • Pellets                             |                |                                    |

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

| Physical                                                     | Typical Value (English)   | Typical Value (SI)     | Test Method     |
|--------------------------------------------------------------|---------------------------|------------------------|-----------------|
| Density <sup>2</sup>                                         | 1.37 g/cm <sup>3</sup>    | 1.37 g/cm <sup>3</sup> | DIN 53479       |
| Ash Content                                                  | 20 %                      | 20 %                   | ISO 3451        |
| Mechanical                                                   | Typical Value (English)   | Typical Value (SI)     | Test Method     |
| Tensile Modulus (73°F (23°C))                                | 827000 psi                | 5700 MPa               | ISO 527-2/1     |
| Tensile Stress (Break, 73°F (23°C))                          | 13100 psi                 | 90.0 MPa               | ISO 527-2/5     |
| Tensile Strain (Break, 73°F (23°C))                          | 3.0 %                     | 3.0 %                  | ISO 527-2/5     |
| Impact                                                       | Typical Value (English)   | Typical Value (SI)     | Test Method     |
| Charpy Notched Impact Strength (73°F (23°C))                 | 2.4 ft·lb/in <sup>2</sup> | 5.0 kJ/m <sup>2</sup>  | ISO 179/1eA     |
| Charpy Unnotched Impact Strength 73°F (23°C)                 | 21 ft·lb/in <sup>2</sup>  | 45 kJ/m <sup>2</sup>   | ISO 179/1eU     |
| Thermal                                                      | Typical Value (English)   | Typical Value (SI)     | Test Method     |
| Heat Deflection Temperature 66 psi (0.45 MPa), Unannealed    | 401 °F                    | 205 °C                 | ISO 75-2/B      |
| Heat Deflection Temperature 264 psi (1.8 MPa), Unannealed    | 347 °F                    | 175 °C                 | ISO 75-2/A      |
| Maximum Use Temperature -- <sup>3</sup>                      | 203 °F                    | 95 °C                  | IEC 60216       |
| Short Time                                                   | 374 °F                    | 190 °C                 |                 |
| Melting Temperature (DSC)                                    | 433 °F                    | 223 °C                 | ISO 3146        |
| Electrical                                                   | Typical Value (English)   | Typical Value (SI)     | Test Method     |
| Surface Resistivity                                          | > 1.0E+12 ohms            | > 1.0E+12 ohms         | IEC 60093       |
| Volume Resistivity                                           | > 1.0E+14 ohms·cm         | > 1.0E+14 ohms·cm      | IEC 60093       |
| Comparative Tracking Index (Solution A)                      | > 550 V                   | > 550 V                | IEC 60112       |
| Flammability                                                 | Typical Value (English)   | Typical Value (SI)     | Test Method     |
| Flame Rating 0.03 to 0.12 in (0.8 to 3.0 mm), ALL            | V-2                       | V-2                    | Internal Method |
| Glow Wire Flammability Index 0.03 to 0.12 in (0.8 to 3.0 mm) | 1760 °F                   | 960 °C                 | IEC 60695-2-12  |

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## 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 °F                  | 240 °C             |
| Mold Temperature       | 140 to 176 °F           | 60 to 80 °C        |

## Notes

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

<sup>2</sup> ±0.03 g/cm<sup>3</sup>

<sup>3</sup> Continuous (GTP 50% Tensile)

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