



# Bergamid™ B80 red VN6981CF

## Polyamide 6

### Key Characteristics

| General               |                        |                  |                |
|-----------------------|------------------------|------------------|----------------|
| Material Status       | • Commercial: Active   |                  |                |
| Regional Availability | • Africa & Middle East | • Asia Pacific   | • Europe       |
| Features              | • Heat Aging Resistant | • High Viscosity | • UV Resistant |
| RoHS Compliance       | • RoHS Compliant       |                  |                |
| Forms                 | • Pellets              |                  |                |

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

| Physical                                                    | Typical Value (English)   | Typical Value (SI)     | Test Method  |
|-------------------------------------------------------------|---------------------------|------------------------|--------------|
| Density <sup>2</sup>                                        | 1.13 g/cm <sup>3</sup>    | 1.13 g/cm <sup>3</sup> | DIN 53479    |
| K-Value <sup>3</sup>                                        | > 80.0                    | > 80.0                 |              |
| 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),<br>Injection Molded        | 392000 psi                | 2700 MPa               |              |
| Tensile Stress                                              |                           |                        | ISO 527-2/50 |
| Yield, 73°F (23°C), 0.157 in (4.00 mm),<br>Injection Molded | 11600 psi                 | 80.0 MPa               |              |
| Tensile Strain                                              |                           |                        | ISO 527-2/50 |
| Yield, 73°F (23°C), 0.157 in (4.00 mm),<br>Injection Molded | 3.5 %                     | 3.5 %                  |              |
| Flexural Modulus (73°F (23°C))                              | 319000 psi                | 2200 MPa               | ISO 178      |
| Flexural Stress (73°F (23°C))                               | 11000 psi                 | 76.0 MPa               | ISO 178      |
| Impact                                                      | Typical Value (English)   | Typical Value (SI)     | Test Method  |
| Charpy Notched Impact Strength                              |                           |                        | ISO 179/1eA  |
| -22°F (-30°C)                                               | 1.6 ft·lb/in <sup>2</sup> | 3.4 kJ/m <sup>2</sup>  |              |
| 73°F (23°C)                                                 | 2.9 ft·lb/in <sup>2</sup> | 6.0 kJ/m <sup>2</sup>  |              |
| Charpy Unnotched Impact Strength                            |                           |                        | ISO 179/1eU  |
| -22°F (-30°C)                                               | 21 ft·lb/in <sup>2</sup>  | 45 kJ/m <sup>2</sup>   |              |
| 73°F (23°C)                                                 | No Break                  | No Break               |              |
| Thermal                                                     | Typical Value (English)   | Typical Value (SI)     | Test Method  |
| Heat Deflection Temperature                                 |                           |                        | ISO 75-2/B   |
| 66 psi (0.45 MPa), Unannealed                               | 338 °F                    | 170 °C                 |              |
| Heat Deflection Temperature                                 |                           |                        | ISO 75-2/A   |
| 264 psi (1.8 MPa), Unannealed                               | 149 °F                    | 65.0 °C                |              |
| Maximum Use Temperature                                     |                           |                        | IEC 60216    |
| -- <sup>4</sup>                                             | 167 °F                    | 75 °C                  |              |
| Short Time                                                  | 347 °F                    | 175 °C                 |              |
| Melting Temperature (DSC)                                   | 433 °F                    | 223 °C                 | ISO 3146     |
| Electrical                                                  | Typical Value (English)   | Typical Value (SI)     | Test Method  |
| Surface Resistivity                                         | 1.0E+14 ohms              | 1.0E+14 ohms           | IEC 60093    |
| Volume Resistivity                                          | 1.0E+15 ohms·cm           | 1.0E+15 ohms·cm        | IEC 60093    |

**Notes**

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

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<sup>2</sup>  $\pm 0.03 \text{ g/cm}^3$

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<sup>3</sup> 96% H<sub>2</sub>SO<sub>4</sub>

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<sup>4</sup> Continuous (GTP 50% Tensile)

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