



## Bergamid™ B70 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>                                         | 1.35 g/cm <sup>3</sup>    | 1.35 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))                                | 914000 psi                | 6300 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))                 | 1.9 ft·lb/in <sup>2</sup> | 4.0 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    | 320 °F                    | 160 °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  |

Copyright © 2019 PolyOne Corporation. PolyOne makes no representations, guarantees, or warranties of any kind with respect to the Information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the Information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. Values reported as "typical" or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications. Processing conditions can cause material properties to shift from the values stated in the Information. PolyOne makes no warranties or guarantees respecting suitability of either PolyOne's products or the Information for your process or end-use application. You have the responsibility to conduct full-scale end-product performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the Information and/or use or handling of any product. POLYONE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, either with respect to the Information or products reflected by the Information. This data sheet shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.

## 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)

## CONTACT INFORMATION

## Americas

United States - Avon Lake  
+1 440 930 1000

United States - McHenry  
+1 815 385 8500

## Asia

China - Guangzhou  
+86 20 8732 7260

China - Shenzhen  
+86 755 2969 2888

China - Suzhou  
+86 512 6823 24 38

China - Suzhou  
+86 512 6265 2600

Hong Kong -  
+852 2690 5332

Taiwan - Yonghe City,  
+886 9396 99740, +886 2929 1849

## Europe

Germany - Gaggenau  
+49 7225 6802 0

Spain - Barbastro (Huesca)  
+34 974 310 314



*Beyond Polymers.*

*Better Business Solutions. <sup>SM</sup>*

www.polyone.com

## PolyOne Americas

33587 Walker Road  
Avon Lake, Ohio 44012  
United States  
+1 440 930 1000  
+1 866 POLYONE

## PolyOne Asia

No. 88 Guoshoujing Road  
Z.J Hi-tech Park, Pudong  
Shanghai, 201203, China  
+86 21 5080 1188

## PolyOne Europe

6 Giällewee  
+352 269 050 35

Copyright ©, 2019 PolyOne Corporation. PolyOne makes no representations, guarantees, or warranties of any kind with respect to the Information contained in this document about its accuracy, suitability for particular applications, or the results obtained or obtainable using the information. Some of the Information arises from laboratory work with small-scale equipment which may not provide a reliable indication of performance or properties obtained or obtainable on larger-scale equipment. Values reported as "typical" or stated without a range do not state minimum or maximum properties; consult your sales representative for property ranges and min/max specifications. Processing conditions can cause material properties to shift from the values stated in the Information. PolyOne makes no warranties or guarantees respecting suitability of either PolyOne's products or the Information for your process or end-use application. You have the responsibility to conduct full-scale end-product performance testing to determine suitability in your application, and you assume all risk and liability arising from your use of the Information and/or use or handling of any product. POLYONE MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, either with respect to the Information or products reflected by the Information. This data sheet shall NOT operate as permission, recommendation, or inducement to practice any patented invention without permission of the patent owner.