



# Bergamid™ B700 G20 H UF grey VN8633 CF LS SO

## Polyamide 6

### Key Characteristics

General			
Material Status	• Commercial: Active		
Regional Availability	• Africa & Middle East	• Asia Pacific	• Europe
Filler / Reinforcement	• Glass Fiber, 20% Filler by Weight		
Additive	• Heat Stabilizer		
Features	• Flame Retardant • Halogen Free	• Heat Stabilized • Laser Markable	• Low (to None) Phosphorus Content • Specialty Grade
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
Molding Shrinkage - Flow (0.118 in (3.00 mm))	5.1E-3 to 6.3E-3 in/in	0.51 to 0.63 %	Internal Method
Molding Shrinkage - Across Flow (0.118 in (3.00 mm))	5.9E-3 to 7.2E-3 in/in	0.59 to 0.72 %	Internal Method
Ash Content	20 %	20 %	ISO 3451
Mechanical	Typical Value (English)	Typical Value (SI)	Test Method
Tensile Modulus (73°F (23°C))	1.28E+6 psi	8800 MPa	ISO 527-2/1
Tensile Stress (Break, 73°F (23°C))	14400 psi	99.0 MPa	ISO 527-2/5
Tensile Strain (Break, 73°F (23°C))	1.9 %	1.9 %	ISO 527-2/5
Impact	Typical Value (English)	Typical Value (SI)	Test Method
Charpy Notched Impact Strength (73°F (23°C))	2.0 ft·lb/in <sup>2</sup>	4.2 kJ/m <sup>2</sup>	ISO 179/1eA
Charpy Unnotched Impact Strength 73°F (23°C)	15 ft·lb/in <sup>2</sup>	31 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	428 °F	220 °C	ISO 75-2/B
Maximum Use Temperature ... <sup>3</sup>	230 °F	110 °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+10 ohms	1.0E+10 ohms	IEC 60093
Volume Resistivity	1.0E+12 ohms·cm	1.0E+12 ohms·cm	IEC 60093
Comparative Tracking Index (Solution A)	600 V	600 V	IEC 60112
Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Flame Rating			UL 94
0.031 in (0.8 mm), NC, RD, WT	V-2	V-2	
0.031 in (0.8 mm), BK	V-0	V-0	
0.06 in (1.5 mm), ALL	V-0	V-0	

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.

Flammability	Typical Value (English)	Typical Value (SI)	Test Method
Glow Wire Ignition Temperature <sup>4</sup> 0.12 in (3.0 mm)	1760 °F	960 °C	IEC 60695-2-13

## 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 g/cm<sup>3</sup>

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

<sup>4</sup> 0.8 mm wire

## 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.