



## Gravi-Tech™ GRV-PB-069-BMX Natural Polyether Block Amide

### Key Characteristics

| General               |  |  |   |
|-----------------------|--|--|---|
| Material Status       | • Commercial: Active   |  |   |
| Regional Availability | • Africa & Middle East<br>• Asia Pacific                       | • Europe<br>• Latin America            | • North America                             |
| Features              | • Non-Toxic  |  |   |
| Uses                  | • Industrial Applications<br>• Medical/Healthcare Applications | • Projectiles<br>• Radiation Shielding | • Sporting Goods<br>• Weighting & Balancing |
| Forms                 | • Pellets  |  |   |
| Processing Method     | • Injection Molding  |  |   |

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

| Physical  | Typical Value (English)    | Typical Value (SI)     | Test Method |
|---|----------------------------|------------------------|-------------|
| Specific Gravity  | 6.90                       | 6.90                   | ASTM D792   |
| Molding Shrinkage - Flow  | 6.0E-3 to 8.0E-3 in/in     | 0.60 to 0.80 %         | ASTM D955   |
| Mechanical  | Typical Value (English)    | Typical Value (SI)     | Test Method |
| Tensile Modulus <sup>2</sup>  | 585000 psi                 | 4030 MPa               | ASTM D638   |
| Tensile Strength <sup>2</sup> (Yield)                                       | 1000 psi                   | 6.89 MPa               | ASTM D638   |
| Tensile Elongation <sup>2</sup> (Break)                                     | 1.0 %                      | 1.0 %                  | ASTM D638   |
| Flexural Modulus  | 390000 psi                 | 2690 MPa               | ASTM D790   |
| Flexural Strength   | 1800 psi                   | 12.4 MPa               | ASTM D790   |
| Impact  | Typical Value (English)    | Typical Value (SI)     | Test Method |
| Notched Izod Impact<br>73°F (23°C), 0.250 in (6.35 mm),<br>Injection Molded | 1.0 ft·lb/in               | 53 J/m                 | ASTM D256A  |
| Unnotched Izod Impact (Area)  | 2.50 ft·lb/in <sup>2</sup> | 5.25 kJ/m <sup>2</sup> | ASTM D256   |

### Processing Information

| Injection              | Typical Value (English) | Typical Value (SI) |
|------------------------|-------------------------|--------------------|
| Drying Temperature     | 160 °F                  | 71.1 °C            |
| Drying Time            | 4.0 to 6.0 hr           | 4.0 to 6.0 hr      |
| Processing (Melt) Temp | 450 to 520 °F           | 232 to 271 °C      |
| Mold Temperature       | 100 to 120 °F           | 37.8 to 48.9 °C    |

### Notes

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

<sup>2</sup> Type I, 0.20 in/min (5.1 mm/min)

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**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



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[www.polyone.com](http://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

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