

## PolyOne Bergamid™ A700 G15 HW UF Polyamide 66 (Nylon 66)

Category : Polymer , Thermoplastic , Nylon , Nylon 66

### Material Notes:

These products contain flame retardants which are activated by longer residence times in the cylinder and then can decompose. At interruption of the moulding cycle (approx. >5 min) it is recommended to jet melt completely and to clean the cylinder, e.g. with a standard polyamide. Information provided by PolyOne

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_PolyOne-Bergamid-A700-G15-HW-UF-Polyamide-66-Nylon-66.php](http://www.lookpolymers.com/polymer_PolyOne-Bergamid-A700-G15-HW-UF-Polyamide-66-Nylon-66.php)

| Physical Properties | Metric    | English                   | Comments                            |
|---------------------|-----------|---------------------------|-------------------------------------|
| Density             | 1.31 g/cc | 0.0473 lb/in <sup>3</sup> | ±0.03 g/cm <sup>3</sup> ; DIN 53479 |

| Mechanical Properties     | Metric  | English  | Comments    |
|---------------------------|---|--|-------------|
| Tensile Strength at Break | 105 MPa<br>@Temperature 23.0 °C                 | 15200 psi<br>@Temperature 73.4 °F                  | ISO 527-2/5 |
| Elongation at Break       | 3.0 %<br>@Temperature 23.0 °C                   | 3.0 %<br>@Temperature 73.4 °F                      | ISO 527-2/5 |
| Tensile Modulus           | 7.00 GPa<br>@Temperature 23.0 °C                | 1020 ksi<br>@Temperature 73.4 °F                   | ISO 527-2/1 |
| Charpy Impact Unnotched   | 5.00 J/cm <sup>2</sup><br>@Temperature 23.0 °C  | 23.8 ft-lb/in <sup>2</sup><br>@Temperature 73.4 °F | ISO 179/1eU |
| Charpy Impact, Notched    | 0.500 J/cm <sup>2</sup><br>@Temperature 23.0 °C | 2.38 ft-lb/in <sup>2</sup><br>@Temperature 73.4 °F | ISO 179/1eA |

| Thermal Properties | Metric                         | English                        | Comments |
|--------------------|--------------------------------|--------------------------------|----------|
| Melting Point      | 261 °C                         | 502 °F                         | ISO 3146 |
| UL RTI, Electrical | 65.0 °C<br>@Thickness 0.400 mm | 149 °F<br>@Thickness 0.0157 in | UL 746   |
|                    | 125 °C<br>@Thickness 0.750 mm  | 257 °F<br>@Thickness 0.0295 in | UL 746   |
|                    | 125 °C<br>@Thickness 1.50 mm   | 257 °F<br>@Thickness 0.0591 in | UL 746   |
|                    | 125 °C                         | 257 °F                         | UL 746   |

| Thermal Properties                | @Thickness 3.00 mm<br>Metric | @Thickness 0.118 in<br>English | Comments                             |
|-----------------------------------|------------------------------|--------------------------------|--------------------------------------|
| UL RTI, Mechanical with Impact    | 65.0 °C                      | 149 °F                         | UL 746                               |
|                                   | @Thickness 0.400 mm          | @Thickness 0.0157 in           |                                      |
|                                   | 100 °C                       | 212 °F                         | UL 746                               |
|                                   | @Thickness 0.750 mm          | @Thickness 0.0295 in           |                                      |
|                                   | 110 °C                       | 230 °F                         | UL 746                               |
|                                   | @Thickness 1.50 mm           | @Thickness 0.0591 in           |                                      |
|                                   | 120 °C                       | 248 °F                         | UL 746                               |
|                                   | @Thickness 3.00 mm           | @Thickness 0.118 in            |                                      |
| UL RTI, Mechanical without Impact | 65.0 °C                      | 149 °F                         | UL 746                               |
|                                   | @Thickness 0.400 mm          | @Thickness 0.0157 in           |                                      |
|                                   | 105 °C                       | 221 °F                         | UL 746                               |
|                                   | @Thickness 0.750 mm          | @Thickness 0.0295 in           |                                      |
|                                   | 115 °C                       | 239 °F                         | UL 746                               |
|                                   | @Thickness 1.50 mm           | @Thickness 0.0591 in           |                                      |
|                                   | 125 °C                       | 257 °F                         | UL 746                               |
|                                   | @Thickness 3.00 mm           | @Thickness 0.118 in            |                                      |
| Flammability, UL94                | V-0                          | V-0                            | ALL; UL 94                           |
|                                   | @Thickness 0.400 mm          | @Thickness 0.0157 in           |                                      |
|                                   | V-0                          | V-0                            | ALL; UL 94                           |
|                                   | @Thickness 0.750 mm          | @Thickness 0.0295 in           |                                      |
|                                   | V-0                          | V-0                            | ALL; Internal Method                 |
|                                   | @Thickness 1.50 mm           | @Thickness 0.0591 in           |                                      |
|                                   | V-0                          | V-0                            | ALL; UL 94                           |
|                                   | @Thickness 3.00 mm           | @Thickness 0.118 in            |                                      |
| Glow Wire Test                    | 960 °C                       | 1760 °F                        | Ignition Temperature; IEC 60695-2-13 |
|                                   | @Thickness 1.60 mm           | @Thickness 0.0630 in           |                                      |
|                                   | 960 °C                       | 1760 °F                        | Ignition Temperature; IEC 60695-2-13 |
|                                   | @Thickness 3.00 mm           | @Thickness 0.118 in            |                                      |

| Electrical Properties | Metric | English | Comments |
|-----------------------|--------|---------|----------|
|-----------------------|--------|---------|----------|

| Volume Resistivity<br>Electrical Properties | 1.00e+15 ohm-cm<br>Metric | 1.00e+15 ohm-cm<br>English | IEC 60093<br>Comments |
|---|---------------------------|----------------------------|-----------------------|
| Surface Resistance                          | 1.00e+13 ohm              | 1.00e+13 ohm               | IEC 60093             |
| Comparative Tracking Index                  | 600 V                     | 600 V                      | Solution A; IEC 60112 |

| Processing Properties | Metric           | English          | Comments        |
|-----------------------|------------------|------------------|-----------------|
| Melt Temperature      | 260 - 280 °C     | 500 - 536 °F     |                 |
| Mold Temperature      | 60.0 - 90.0 °C   | 140 - 194 °F     |                 |
| Drying Temperature    | 80.0 °C          | 176 °F           | Desiccant Dryer |
| Dry Time              | 3.00 - 4.00 hour | 3.00 - 4.00 hour | Desiccant Dryer |
| Hold Pressure         | 40.0 - 90.0 MPa  | 5800 - 13100 psi |                 |

| Descriptive Properties           | Value   | Comments        |
|----------------------------------|---|-----------------|
| Additive                         | Heat Stabilizer                                 |                 |
| Comparative Tracking Index (CTI) | PLC 0   | UL 746; 3.00 mm |
| Features                         | Flame Retardant                                 |                 |
|                                  | Halogen Free                                    |                 |
|                                  | Heat Stabilized                                 |                 |
| Filler / Reinforcement           | Glass Fiber Reinforcement, 15% Filler by Weight |                 |
| Forms                            | Pellets   |                 |
| Generic Material                 | Nylon 66  |                 |
| Generic Name                     | Polyamide 66 (Nylon 66)                         |                 |
| Regional Availability            | Africa & Middle East                            |                 |
|                                  | Asia Pacific                                    |                 |
|                                  | Europe  |                 |
|                                  | North America                                   |                 |
| RoHS Compliance                  | RoHS Compliant                                  |                 |
| UL File Number                   | E76261  |                 |

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