

PolyOne Bergamid™ B700 Polyamide 6 (Nylon 6)

Category : Polymer , Thermoplastic , Nylon , Nylon 6

Material Notes:

Information provided by PolyOne

Order this product through the following link:

http://www.lookpolymers.com/polymer_PolyOne-Bergamid-B700-Polyamide-6-Nylon-6.php

| Physical Properties | Metric | English | Comments |
|---------------------|-----------|---------------------------|-------------------------------------|
| Density | 1.13 g/cc | 0.0408 lb/in ³ | ±0.03 g/cm ³ ; DIN 53479 |

| Mechanical Properties | Metric | English | Comments |
|-------------------------|--|---|--------------|
| Tensile Strength, Yield | 50.0 MPa @Temperature 23.0 °C | 7250 psi @Temperature 73.4 °F | ISO 527-2/50 |
| Elongation at Yield | 22 % @Temperature 23.0 °C | 22 % @Temperature 73.4 °F | ISO 527-2/50 |
| Tensile Modulus | 1.10 GPa @Temperature 23.0 °C | 160 ksi @Temperature 73.4 °F | ISO 527-2/1 |
| Charpy Impact Unnotched | NB @Temperature 23.0 °C | NB @Temperature 73.4 °F | ISO 179/1eU |
| | NB @Temperature -30.0 °C | NB @Temperature -22.0 °F | ISO 179/1eU |
| Charpy Impact, Notched | 0.400 J/cm ² @Temperature -30.0 °C | 1.90 ft-lb/in ² @Temperature -22.0 °F | ISO 179/1eA |
| | 0.600 J/cm ² @Temperature 23.0 °C | 2.86 ft-lb/in ² @Temperature 73.4 °F | ISO 179/1eA |

| Thermal Properties | Metric | English | Comments |
|---|---------|---------|---|
| Melting Point | 223 °C | 433 °F | ISO 3146 |
| Maximum Service Temperature, Air | 75.0 °C | 167 °F | Continuous (GTP 50% Tensile); IEC 60216 |
| | 175 °C | 347 °F | Short Time; IEC 60216 |
| Deflection Temperature at 0.46 MPa (66 psi) | 170 °C | 338 °F | Unannealed; ISO 75-2/B |
| Deflection Temperature at 1.8 MPa | 65.0 °C | 149 °F | |

| (264 psi) Thermal Properties | Metric | English | Unannealed; ISO 75-2/A Comments |
|---------------------------------|----------------------------|-----------------------------|------------------------------------|
| Flammability, UL94 | V-2 @Thickness 0.800 mm | V-2 @Thickness 0.0315 in | ALL; Internal Method |

| Electrical Properties | Metric | English | Comments |
|----------------------------|----------------------------------|----------------------------------|-----------------------|
| Volume Resistivity | 1.00e+12 ohm-cm | 1.00e+12 ohm-cm | IEC 60093 |
| Surface Resistance | 1.00e+10 ohm | 1.00e+10 ohm | IEC 60093 |
| Dielectric Constant | 7.0 @Frequency 1.00e+6 Hz | 7.0 @Frequency 1.00e+6 Hz | IEC 60250 |
| Dielectric Strength | 60.0 kV/mm | 1520 kV/in | IEC 60243-1 |
| Dissipation Factor | 0.30 @Frequency 1.00e+6 Hz | 0.30 @Frequency 1.00e+6 Hz | IEC 60250 |
| Comparative Tracking Index | 600 V | 600 V | Solution A; IEC 60112 |

| Descriptive Properties | Value | Comments |
|------------------------|-----------------------|------------------------|
| Forms | Pellets | |
| Generic Material | Nylon 6 | |
| Generic Name | Polyamide 6 (Nylon 6) | |
| K-Value | 74.0 to 78.0 | No Standard; 96% H2SO4 |
| Regional Availability | Africa & Middle East | |
| | Asia Pacific | |
| | Europe | |
| RoHS Compliance | RoHS Compliant | |

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