

EMS-Grivory Grivory® BGZ-40 PA6-GF40

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6 , 40% Glass Fiber Filled

Material Notes:

Product description: Grilon BGZ-40 is a normal viscosity, heat stabilized and impact modified PA 6 injection molding type with 40% glass fibers. Grilon BGZ-40 has the following important properties: Good impact strength High stiffness Easy processing Application examples are structural components for furniture applications, housings for electro power tools and functional parts for automotive applications. Information provided by EMS Grivory

Order this product through the following link:

http://www.lookpolymers.com/polymer_EMS-Grivory-Grivory-BGZ-40-PA6-GF40.php

| Physical Properties | Metric | English | Comments |
|-----------------------------------|--------------|---------------------------|-----------------|
| Density | 1.43 g/cc | 0.0517 lb/in ³ | ISO 1183 |
| Water Absorption | 5.0 % | 5.0 % | ISO 62 |
| Moisture Absorption | 1.50 % | 1.50 % | ISO 62 |
| Linear Mold Shrinkage, Flow | 0.0010 cm/cm | 0.0010 in/in | ISO 294-4, 2577 |
| Linear Mold Shrinkage, Transverse | 0.0050 cm/cm | 0.0050 in/in | ISO 294-4, 2577 |

| Mechanical Properties | Metric | English | Comments |
|---------------------------|--|--|---------------------------|
| Ball Indentation Hardness | 120 MPa | 17400 psi | conditioned; ISO 2039-1 |
| | 220 MPa | 31900 psi | dry; ISO 2039-1 |
| Tensile Strength at Break | 115 MPa | 16700 psi | conditioned; ISO 527-1/-2 |
| | 170 MPa | 24700 psi | dry; ISO 527-1/-2 |
| Elongation at Break | 3.5 % | 3.5 % | dry; ISO 527-1/-2 |
| | 8.0 % | 8.0 % | conditioned; ISO 527-1/-2 |
| Tensile Modulus | 7.50 GPa | 1090 ksi | conditioned; ISO 527-1/-2 |
| | 11.0 GPa | 1600 ksi | dry; ISO 527-1/-2 |
| Charpy Impact Unnotched | 10.0 J/cm ² | 47.6 ft-lb/in ² | dry; ISO 179/1eU |
| | 12.0 J/cm ² | 57.1 ft-lb/in ² | conditioned; ISO 179/1eU |
| | 8.50 J/cm ² @Temperature 30.0 °C | 40.4 ft-lb/in ² @Temperature 86.0 °F | dry; ISO 179/1eU |
| | 10.0 J/cm ² | 47.6 ft-lb/in ² | conditioned; ISO 179/1eU |

| Mechanical Properties | @Temperature 30.0 °C Metric | @Temperature 86.0 °F English | Comments |
|------------------------|--------------------------------|---------------------------------|--------------------------|
| Charpy Impact, Notched | 2.50 J/cm ² | 11.9 ft-lb/in ² | dry; ISO 179/1eA |
| | 3.50 J/cm ² | 16.7 ft-lb/in ² | conditioned; ISO 179/1eA |
| | 1.90 J/cm ² | 9.04 ft-lb/in ² | dry; ISO 179/1eU |
| | @Temperature 30.0 °C | @Temperature 86.0 °F | |

| Thermal Properties | Metric | English | Comments |
|---|---------------|----------------|--------------------------|
| CTE, linear, Parallel to Flow | 20.0 µm/m-°C | 11.1 µin/in-°F | ISO 11359-1/-2 |
| CTE, linear, Transverse to Flow | 60.0 µm/m-°C | 33.3 µin/in-°F | ISO 11359-1/-2 |
| Melting Point | 222 °C | 432 °F | 10°C/min; ISO 11357-1/-3 |
| Maximum Service Temperature, Air | 90.0 - 120 °C | 194 - 248 °F | long term; EMS |
| | 160 °C | 320 °F | short term; EMS |
| Deflection Temperature at 1.8 MPa (264 psi) | 205 °C | 401 °F | ISO 75-1/-2 |
| Deflection Temperature at 8.0 MPa | 120 °C | 248 °F | ISO 75-1/-2 |
| Flammability, UL94 | HB | HB | IEC 60695-11-10 |

| Electrical Properties | Metric | English | Comments |
|----------------------------|-----------------|-----------------|--------------------------|
| Volume Resistivity | 1.00e+13 ohm-cm | 1.00e+13 ohm-cm | conditioned; IEC 60093 |
| | 1.00e+14 ohm-cm | 1.00e+14 ohm-cm | dry; IEC 60093 |
| Surface Resistance | 1.00e+12 ohm | 1.00e+12 ohm | IEC 60093 |
| Dielectric Strength | 37.0 kV/mm | 940 kV/in | conditioned; IEC 60243-1 |
| | 41.0 kV/mm | 1040 kV/in | dry; IEC 60243-1 |
| Comparative Tracking Index | 550 V | 550 V | conditioned; IEC 60112 |

| Descriptive Properties | Value | Comments |
|-------------------------|--------------------------------|----------|
| Form | Granules | |
| Processing | Injection Molding | |
| Special Characteristics | High impact or impact modified | |

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