

EMS-Grivory Grivory® XE 5107 (GVL-5H V0) PA*-GF50

Category : Polymer , Thermoplastic , Nylon

Material Notes:

Product description: Grivory XE 5107 black 9915 is based on a combination of a heat stabilized semi-crystalline Polyamide with a partially aromatic Polyamide. The product is flame retarded and reinforced by 50% long glass fibers. Grivory XE 5107 black 9915 is characterized by the following key-properties: flame retardancy of V-0 and 5VA at 1.6 mm Glow wire ignition > 800°C, CTI 600 Very high stiffness and strength even after conditioning and over a wide temperature range excellent notched impact resistance also at low temperatures very low creep high heat distortion temperatures slow moisture absorption very good dimensional stability and little warpage Grivory XE 5107 is halogen free and does not contain red phosphorus. It complies with the regulations acc. RoHS (2002/95/EC) and is not affected by the guideline 2002/96/EC (WEEE) for Electro-Appliances. The product has been designed for injection moulding of technical parts especially in the area of flame retardant parts with no electrostatic charging possible Grivory XE 5107 (GVL-4H V0) black 9915 is used in the following market segments: automotive mechanical engineering electro-mechanical parts The glass fibers are aligned in parallel and are just as long as the pellets (usually 10 mm). Information provided by EMS Grivory

Order this product through the following link:

http://www.lookpolymers.com/polymer_EMS-Grivory-Grivory-XE-5107-GVL-5H-V0-PA-GF50.php

| Physical Properties | Metric | English | Comments |
|-----------------------------------|--------------|---------------------------|-----------------|
| Density | 1.59 g/cc | 0.0574 lb/in ³ | ISO 1183 |
| Water Absorption | 3.6 % | 3.6 % | ISO 62 |
| Moisture Absorption | 1.00 % | 1.00 % | ISO 62 |
| Linear Mold Shrinkage, Flow | 0.0010 cm/cm | 0.0010 in/in | ISO 294-4, 2577 |
| Linear Mold Shrinkage, Transverse | 0.0030 cm/cm | 0.0030 in/in | ISO 294-4, 2577 |

| Mechanical Properties | Metric | English | Comments |
|---------------------------|------------------------|----------------------------|---------------------------|
| Ball Indentation Hardness | 250 MPa | 36300 psi | conditioned; ISO 2039-1 |
| | 265 MPa | 38400 psi | dry; ISO 2039-1 |
| Tensile Strength at Break | 205 MPa | 29700 psi | conditioned; ISO 527-1/-2 |
| | 230 MPa | 33400 psi | dry; ISO 527-1/-2 |
| Elongation at Break | 2.4 % | 2.4 % | dry; ISO 527-1/-2 |
| | 2.5 % | 2.5 % | conditioned; ISO 527-1/-2 |
| Tensile Modulus | 16.5 GPa | 2390 ksi | conditioned; ISO 527-1/-2 |
| | 17.5 GPa | 2540 ksi | dry; ISO 527-1/-2 |
| Charpy Impact Unnotched | 9.00 J/cm ² | 42.8 ft-lb/in ² | conditioned; ISO 179/1eU |

| Mechanical Properties | Metric ^{lb/cm²} | English ^{lb/in²} | Comments ^{1/1eU} |
|------------------------|--|--|---------------------------|
| | 9.00 J/cm ² @Temperature 30.0 °C | 42.8 ft-lb/in ² @Temperature 86.0 °F | dry; ISO 179/1eU |
| | 9.00 J/cm ² @Temperature 30.0 °C | 42.8 ft-lb/in ² @Temperature 86.0 °F | conditioned; ISO 179/1eU |
| Charpy Impact, Notched | 3.00 J/cm ² | 14.3 ft-lb/in ² | dry; ISO 179/1eA |
| | 3.00 J/cm ² | 14.3 ft-lb/in ² | conditioned; ISO 179/1eA |
| | 3.00 J/cm ² @Temperature 30.0 °C | 14.3 ft-lb/in ² @Temperature 86.0 °F | dry; ISO 179/1eU |
| | 3.00 J/cm ² @Temperature 30.0 °C | 14.3 ft-lb/in ² @Temperature 86.0 °F | conditioned; ISO 179/1eU |

| 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 | 50.0 µm/m-°C | 27.8 µin/in-°F | ISO 11359-1/-2 |
| Melting Point | 260 °C | 500 °F | 10°C/min; ISO 11357-1/-3 |
| Maximum Service Temperature, Air | 100 - 120 °C | 212 - 248 °F | long term; EMS |
| | 220 °C | 428 °F | short term; EMS |
| Deflection Temperature at 1.8 MPa (264 psi) | 250 °C | 482 °F | ISO 75-1/-2 |
| Deflection Temperature at 8.0 MPa | 220 °C | 428 °F | ISO 75-1/-2 |
| Flammability, UL94 | V-0 | V-0 | IEC 60695-11-10 |
| | 5VA | 5VA | IEC 60695-11-20 |

| Electrical Properties | Metric | English | Comments |
|-----------------------|-----------------|-----------------|--------------------------|
| Volume Resistivity | 1.00e+12 ohm-cm | 1.00e+12 ohm-cm | dry; IEC 60093 |
| | 1.00e+12 ohm-cm | 1.00e+12 ohm-cm | conditioned; IEC 60093 |
| Surface Resistance | 1.00e+13 ohm | 1.00e+13 ohm | IEC 60093 |
| Dielectric Strength | 33.0 kV/mm | 838 kV/in | dry; IEC 60243-1 |
| | 33.0 kV/mm | 838 kV/in | conditioned; IEC 60243-1 |

| Comparative Tracking Index Electrical Properties | 600 V Metric | 600 V English | conditioned; IEC 60112 Comments |
|---|--|------------------|------------------------------------|
| Descriptive Properties | Value | | Comments |
| Automotive | Automotive electr. and electronics, lighting | | |
| | Cooling and climate control | | |
| | Exterior | | |
| | Interior | | |
| | Powertrain and Chassis | | |
| Electricals & Electronics | Connectors | | |
| | Electrical appliances | | |
| | Electrical equipment | | |
| | Energy distribution | | |
| | Lighting | | |
| Form | Granules | | |
| Industry & Consumer goods | Heating systems | | |
| | Housewares | | |
| | Hydraulics & Pneumatics | | |
| | Mechanical Engineering | | |
| | Power transmission | | |
| | Sports & Leisure | | |
| | Tools & Accessories | | |
| Processing | Injection Molding | | |
| Product Attributes | Long Fiber Reinforced | | |
| | Partially aromatic Polyamide | | |
| Special Characteristics | Flame retardant | | |
| | Improved heat resistance | | |

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215, Fengxian District, Shanghai City, China