

## EMS-Grivory Grivory® LV-2H PA12-GF20

Category : Polymer , Thermoplastic , Nylon , Nylon 12 , Nylon 12, 20% Glass Fiber Filled

### Material Notes:

Product description: Grilamid LV-2H is a 20% glass fiber reinforced, heat stabilized polyamide 12 injection molding grade with the following product profile: very low water absorptionhigh dimensional stabilityvery high elongation at breakgood chemical resistancegood UV Stabilityhigh impact strength Grilamid LV-2H is suitable for production of technical parts in the application fields of: Electrical & electronic componentsAutomotiveSafety componentsMechanical engineeringDomestic appliancesAnalytical and medical devicesSports & leisure goodsInformation provided by EMS Grivory

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_EMS-Grivory-Grivory-LV-2H-PA12-GF20.php](http://www.lookpolymers.com/polymer_EMS-Grivory-Grivory-LV-2H-PA12-GF20.php)

| Physical Properties               | Metric       | English                   | Comments        |
|-----------------------------------|--------------|---------------------------|-----------------|
| Density                           | 1.16 g/cc    | 0.0419 lb/in <sup>3</sup> | ISO 1183        |
| Water Absorption                  | 1.2 %        | 1.2 %                     | ISO 62          |
| Moisture Absorption               | 0.600 %      | 0.600 %                   | ISO 62          |
| Linear Mold Shrinkage, Flow       | 0.0010 cm/cm | 0.0010 in/in              | ISO 294-4, 2577 |
| Linear Mold Shrinkage, Transverse | 0.0070 cm/cm | 0.0070 in/in              | ISO 294-4, 2577 |

| Mechanical Properties     | Metric                                         | English                                            | Comments                  |
|---------------------------|------------------------------------------------|----------------------------------------------------|---------------------------|
| Hardness, Shore D         | 74                                             | 74                                                 | conditioned, 15s; ISO 868 |
| Tensile Strength at Break | 90.0 MPa                                       | 13100 psi                                          | conditioned; ISO 527-1/-2 |
|                           | 105 MPa                                        | 15200 psi                                          | dry; ISO 527-1/-2         |
| Elongation at Break       | 7.0 %                                          | 7.0 %                                              | dry; ISO 527-1/-2         |
|                           | 10 %                                           | 10 %                                               | conditioned; ISO 527-1/-2 |
| Tensile Modulus           | 4.40 GPa                                       | 638 ksi                                            | conditioned; ISO 527-1/-2 |
|                           | 5.50 GPa                                       | 798 ksi                                            | dry; ISO 527-1/-2         |
| Charpy Impact Unnotched   | 7.50 J/cm <sup>2</sup>                         | 35.7 ft-lb/in <sup>2</sup>                         | conditioned; ISO 179/1eU  |
|                           | 8.00 J/cm <sup>2</sup>                         | 38.1 ft-lb/in <sup>2</sup>                         | dry; ISO 179/1eU          |
|                           | 7.50 J/cm <sup>2</sup><br>@Temperature 30.0 °C | 35.7 ft-lb/in <sup>2</sup><br>@Temperature 86.0 °F | conditioned; ISO 179/1eU  |
| Charpy Impact, Notched    | 2.00 J/cm <sup>2</sup>                         | 9.52 ft-lb/in <sup>2</sup>                         | conditioned; ISO 179/1eA  |
|                           | 1.50 J/cm <sup>2</sup>                         | 7.14 ft-lb/in <sup>2</sup>                         |                           |

| Mechanical Properties | Metric<br>@ Temperature 30.0 °C | English<br>@ Temperature 86.0 °F | conditioned; ISO 179/1eU<br>Comments |
|-----------------------|---------------------------------|----------------------------------|--------------------------------------|
|-----------------------|---------------------------------|----------------------------------|--------------------------------------|

| Thermal Properties                          | Metric        | English        | Comments                 |
|---------------------------------------------|---------------|----------------|--------------------------|
| CTE, linear, Parallel to Flow               | 30.0 µm/m-°C  | 16.7 µin/in-°F | ISO 11359-1/-2           |
| CTE, linear, Transverse to Flow             | 150 µm/m-°C   | 83.3 µin/in-°F | ISO 11359-1/-2           |
| Melting Point                               | 178 °C        | 352 °F         | 10°C/min; ISO 11357-1/-3 |
| Maximum Service Temperature, Air            | 90.0 - 120 °C | 194 - 248 °F   | long term; EMS           |
|                                             | 150 °C        | 302 °F         | short term; EMS          |
| Deflection Temperature at 1.8 MPa (264 psi) | 150 °C        | 302 °F         | ISO 75-1/-2              |
| Deflection Temperature at 8.0 MPa           | 80.0 °C       | 176 °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   |
| Surface Resistance         | 1.00e+12 ohm    | 1.00e+12 ohm    | IEC 60093                |
| Dielectric Strength        | 35.0 kV/mm      | 889 kV/in       | conditioned; IEC 60243-1 |
| Comparative Tracking Index | 600 V           | 600 V           | conditioned; IEC 60112   |

| Descriptive Properties    | Value                                        | Comments |
|---------------------------|----------------------------------------------|----------|
| Automotive                | Air intake sytems                            |          |
|                           | Automotive electr. and electronics, lighting |          |
|                           | Compressed air systems                       |          |
|                           | Cooling and climate control                  |          |
|                           | Fuel systems                                 |          |
|                           | Hydraulic systems                            |          |
|                           | Powertrain and Chassis                       |          |
| Electricals & Electronics | Connectors                                   |          |
|                           | Electrical appliances                        |          |
|                           | Mobile phones and other portable devices     |          |

| Form<br>Descriptive Properties | Granules<br>Value                    | Comments |
|--------------------------------|--------------------------------------|----------|
| Industry & Consumer goods      | Heating systems                      |          |
|                                | Housewares                           |          |
|                                | Hydraulics & Pneumatics              |          |
|                                | Mechanical Engineering               |          |
|                                | Medical devices                      |          |
|                                | Power transmission                   |          |
|                                | Sanitary, water and gas supply       |          |
|                                | Sports & Leisure                     |          |
|                                | Tools & Accessories                  |          |
| Processing                     | Injection Molding                    |          |
| Product Attributes             | Hydrolysis resistant                 |          |
| Special Characteristics        | High impact or impact modified       |          |
|                                | Improved heat resistance             |          |
|                                | Improved UV resistance (outdoor use) |          |

## Contact Songhan Plastic Technology Co.,Ltd.

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