

## EMS-Grivory Grivory® LV-65H FWA nat PA12-GF65

Category : Polymer , Thermoplastic , Nylon , Nylon 12 , Nylon 12, 50% Glass Fiber Filled

### Material Notes:

Product description: Grilamid LV-65H FWA natural is a 65 % glass fiber reinforced, heat stabilized polyamide 12 injection molding grade with the following special features: High stiffness combined with good toughness High elongation Very low water absorption Hydrolysis and chemical resistance Easy processing, especially suitable for thick-walled moldings The special composition of Grilamid LV-65H FWA natural makes it suitable for potable water as well as food contact. Application examples: Grilamid LV-65H FWA natural is designed for applications predominantly in the following application fields: Robust valves and fittings for water and gas supply Taps, fittings, meters, pumps in sanitary equipment Domestic appliances and household goods Components in the food processing industry Information provided by EMS Grivory

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_EMS-Grivory-Grivory-LV-65H-FWA-nat-PA12-GF65.php](http://www.lookpolymers.com/polymer_EMS-Grivory-Grivory-LV-65H-FWA-nat-PA12-GF65.php)

| Physical Properties               | Metric       | English                   | Comments        |
|-----------------------------------|--------------|---------------------------|-----------------|
| Density                           | 1.65 g/cc    | 0.0596 lb/in <sup>3</sup> | ISO 1183        |
| Water Absorption                  | 0.80 %       | 0.80 %                    | ISO 62          |
| Moisture Absorption               | 0.400 %      | 0.400 %                   | ISO 62          |
| Linear Mold Shrinkage, Flow       | 0.0010 cm/cm | 0.0010 in/in              | ISO 294-4, 2577 |
| Linear Mold Shrinkage, Transverse | 0.0040 cm/cm | 0.0040 in/in              | ISO 294-4, 2577 |

| Mechanical Properties     | Metric                 | English                    | Comments                  |
|---------------------------|------------------------|----------------------------|---------------------------|
| Hardness, Shore D         | 85                     | 85                         | conditioned, 15s; ISO 868 |
| Ball Indentation Hardness | 185 MPa                | 26800 psi                  | conditioned; ISO 2039-1   |
| Tensile Strength at Break | 160 MPa                | 23200 psi                  | conditioned; ISO 527-1/-2 |
|                           | 170 MPa                | 24700 psi                  | dry; ISO 527-1/-2         |
| Elongation at Break       | 3.0 %                  | 3.0 %                      | dry; ISO 527-1/-2         |
|                           | 3.5 %                  | 3.5 %                      | conditioned; ISO 527-1/-2 |
| Tensile Modulus           | 17.0 GPa               | 2470 ksi                   | conditioned; ISO 527-1/-2 |
|                           | 18.0 GPa               | 2610 ksi                   | dry; ISO 527-1/-2         |
| Charpy Impact Unnotched   | 6.00 J/cm <sup>2</sup> | 28.6 ft-lb/in <sup>2</sup> | conditioned; ISO 179/1eU  |
|                           | 6.00 J/cm <sup>2</sup> | 28.6 ft-lb/in <sup>2</sup> | conditioned; ISO 179/1eU  |
|                           | @Temperature 30.0 °C   | @Temperature 86.0 °F       |                           |

| Charpy Impact, Notched<br>Mechanical Properties | 1.50 J/cm <sup>2</sup><br>Metric | 7.14 ft-lb/in <sup>2</sup><br>English | conditioned; ISO 179/1eA<br>Comments |
|---|----------------------------------|---------------------------------------|--------------------------------------|
|   | 1.50 J/cm <sup>2</sup>           | 7.14 ft-lb/in <sup>2</sup>            | conditioned; ISO 179/1eU             |
|   | @Temperature 30.0 °C             | @Temperature 86.0 °F                  |                                      |

| Thermal Properties                             | Metric        | English        | Comments                 |
|--|---------------|----------------|--------------------------|
| CTE, linear, Parallel to Flow                  | 15.0 µm/m-°C  | 8.33 µin/in-°F | ISO 11359-1/-2           |
| CTE, linear, Transverse to Flow                | 120 µm/m-°C   | 66.7 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           |
|  | 160 °C        | 320 °F         | short term; EMS          |
| Deflection Temperature at 1.8 MPa<br>(264 psi) | 170 °C        | 338 °F         | ISO 75-1/-2              |
| Deflection Temperature at 8.0 MPa              | 140 °C        | 284 °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 |
|---------------------------|--------------------------------|----------|
| Food contact              | EU Requirements                |          |
|                           | FDA                            |          |
|                           | NSF 51                         |          |
| Form                      | Granules                       |          |
| Industry & Consumer goods | Heating systems                |          |
|                           | Housewares                     |          |
|                           | Sanitary, water and gas supply |          |
| Processing                | Injection Molding              |          |
| Product Attributes        | Hydrolysis resistant           |          |

| Descriptive Properties<br>Special Characteristics | Value<br>High Impact or impact modified | Comments |
|---|---|----------|
|   | Improved heat resistance                |          |
|   | Improved UV resistance (outdoor use)    |          |
| Water Contact                                     | ACS                                     |          |
|   | DVGW W270                               |          |
|   | KTW                                     |          |
|   | NSF 61                                  |          |
|   | WRAS                                    |          |

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