Grilamid® LV-3H
Polyamide 12
EMS-GRIVORY

Technical Data

Product Description
Grilamid® LV-3H is a Polyamide 12 (Nylon 12) material filled with 30% glass fiber. It is available in Africa & Middle East, Asia Pacific, Europe, Latin America, or North America for injection molding.

Important attributes of Grilamid® LV-3H are:
- Flame Rated
- RoHS Compliant
- Heat Stabilizer
- Impact Resistant
- UV Resistant

Typical applications include:
- Automotive
- Electrical/Electronic Applications
- Appliances
- Consumer Goods
- Engineering/Industrial Parts

General

Material Status
- Commercial: Active

Literature
- Processing - Pipe Extrusion (German)
- Technical Datasheet (English)

UL Yellow Card
- E53898-243842
- E132701-237874
- E53898-10131116

Search for UL Yellow Card
- EMS-GRIVORY
- Grilamid®

Availability
- Africa & Middle East
- Asia Pacific
- Europe
- Latin America
- North America

Filler / Reinforcement
- Glass Fiber, 30% Filler by Weight

Additive
- Heat Stabilizer

Features
- Heat Stabilized
- Hydrolysis Resistant
- High Impact Resistance
- UV Resistant

Uses
- Appliance Components
- Automotive Applications
- Connectors
- Consumer Applications
- Engineering Parts
- Electrical/Electronic Applications
- Household Goods
- Hydraulic Applications
- Industrial Applications
- Medical Devices
- Pneumatic Applications
- Power/Other Tools
- Sporting Goods

Agency Ratings
- DVGW W270

RoHS Compliance
- RoHS Compliant

Forms
- Granules

Processing Method
- Injection Molding

Multi-Point Data
- Isochronous Stress vs. Strain (ISO 11403-1)
- Isothermal Stress vs. Strain (ISO 11403-1)
- Secant Modulus vs. Strain (ISO 11403-1)
- Shear Modulus vs. Temperature (ISO 11403-1)
- Viscosity vs. Shear Rate (ISO 11403-2)

Physical

<table>
<thead>
<tr>
<th>Test</th>
<th>Unit</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>g/cm³</td>
<td>ISO 1183</td>
</tr>
<tr>
<td>Molding Shrinkage</td>
<td>%</td>
<td>ISO 294-4</td>
</tr>
<tr>
<td>Across Flow</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flow</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The information presented on this datasheet was acquired by UL Prospector from the producer of the material. UL Prospector makes substantial efforts to assure the accuracy of this data. However, UL Prospector assumes no responsibility for the data values and strongly encourages that upon final material selection, data points are validated with the material supplier.

http://www.umold.com
## Physical

<table>
<thead>
<tr>
<th>Property</th>
<th>Dry Conditioned</th>
<th>Unit</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water Absorption</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Saturation, 23°C</td>
<td>1.1</td>
<td>%</td>
<td>ISO 62</td>
</tr>
<tr>
<td>Equilibrium, 23°C, 50% RH</td>
<td>0.60</td>
<td>%</td>
<td></td>
</tr>
</tbody>
</table>

## Mechanical

<table>
<thead>
<tr>
<th>Property</th>
<th>Dry Conditioned</th>
<th>Unit</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Modulus</td>
<td>6500</td>
<td>MPa</td>
<td>ISO 527-2</td>
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</tbody>
</table>

## Impact

<table>
<thead>
<tr>
<th>Property</th>
<th>Dry Conditioned</th>
<th>Unit</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charpy Notched Impact Strength</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-30°C</td>
<td>15</td>
<td>kJ/m²</td>
<td>ISO 179/1eA</td>
</tr>
<tr>
<td>23°C</td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Charpy Unnotched Impact Strength</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-30°C</td>
<td>90</td>
<td>kJ/m²</td>
<td>ISO 179/1eU</td>
</tr>
<tr>
<td>23°C</td>
<td>90</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Thermal

<table>
<thead>
<tr>
<th>Property</th>
<th>Dry Conditioned</th>
<th>Unit</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat Deflection Temperature</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.8 MPa, Unannealed</td>
<td>160</td>
<td>°C</td>
<td>ISO 75-2/A</td>
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<tr>
<td>6.0 MPa, Unannealed</td>
<td>90.0</td>
<td></td>
<td>ISO 75-2/C</td>
</tr>
<tr>
<td>Melting Temperature ^4</td>
<td>178</td>
<td></td>
<td>ISO 11357-3</td>
</tr>
<tr>
<td>CLTE</td>
<td></td>
<td>cm/cm°C</td>
<td>ISO 11359-2</td>
</tr>
<tr>
<td>Flow</td>
<td>2.0E-5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transverse</td>
<td>1.5E-4</td>
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## Electrical

<table>
<thead>
<tr>
<th>Property</th>
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<th>Test Method</th>
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<tbody>
<tr>
<td>Surface Resistivity</td>
<td>--</td>
<td>ohms</td>
<td>IEC 60093</td>
</tr>
<tr>
<td>Volume Resistivity</td>
<td>--</td>
<td>ohms·cm</td>
<td>IEC 60093</td>
</tr>
<tr>
<td>Electric Strength</td>
<td>--</td>
<td>kV/mm</td>
<td>IEC 60243-1</td>
</tr>
<tr>
<td>Comparative Tracking Index</td>
<td>--</td>
<td>V</td>
<td>IEC 60112</td>
</tr>
</tbody>
</table>

## Flammability

<table>
<thead>
<tr>
<th>Property</th>
<th>Dry Conditioned</th>
<th>Unit</th>
<th>Test Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability Classification (0.800 mm)</td>
<td>HB</td>
<td></td>
<td></td>
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</tbody>
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### Notes

1. These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

2. A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

3. Typical properties: these are not to be construed as specifications.

4. 10°C/min
Where to Buy

Supplier
EMS-GRIVORY
Sumter, SC USA
Telephone: 803-481-6171
Web: http://www.emsgrivory.com/

Distributor
Entec Polymers
Telephone: 800-375-5440
Web: http://www.entecpolymers.com/
Availability: North America

Erteco Rubber & Plastics AB
Telephone: +46 8-587 517 00
Web: http://www.ertecko.se/
Availability: Denmark, Norway, Sweden

ESSE International - OMYA
ESSE International - OMYA is a Pan European distribution company. Contact ESSE International - OMYA for availability of individual products by country.
Telephone: +33-1-30-80-56-56
Web: http://www.omya.com
Availability: Europe, Turkey

Telko Oy
Telko Oy is a Pan European distribution company. Contact Telko Oy for availability of individual products by country.
Telephone: +358-9-5211
Web: http://www.telko.com/
Availability: Belarus, Estonia, Finland, Latvia, Lithuania, Poland, Russian Federation, Ukraine

http://www.upmold.com