

## Grilamid LV-15H nat

### PA12-GF15

EMS-GRIVORY | a unit of EMS-CHEMIE AG

#### Product Texts

Product designation according to ISO 1874:

PA12, MHR, 18-030, GF15

| Mechanical properties                  | dry / cond         | Unit              | Test Standard |
|----------------------------------------|--------------------|-------------------|---------------|
| Tensile Modulus                        | <b>3500 / 3000</b> | MPa               | ISO 527-1/-2  |
| Stress at break                        | <b>80 / 70</b>     | MPa               | ISO 527-1/-2  |
| Strain at break                        | <b>8 / 10</b>      | %                 | ISO 527-1/-2  |
| Charpy impact strength (+23°C)         | - / <b>75</b>      | kJ/m <sup>2</sup> | ISO 179/1eU   |
| Charpy impact strength (-30°C)         | - / <b>75</b>      | kJ/m <sup>2</sup> | ISO 179/1eU   |
| Charpy notched impact strength (+23°C) | - / <b>15</b>      | kJ/m <sup>2</sup> | ISO 179/1eA   |
| Charpy notched impact strength (-30°C) | - / <b>10</b>      | kJ/m <sup>2</sup> | ISO 179/1eA   |

| Mechanical properties (TPE) | dry / cond    | Unit | Test Standard |
|-----------------------------|---------------|------|---------------|
| Shore D hardness (15s)      | - / <b>74</b> | -    | ISO 868       |

| Thermal properties                           | dry / cond      | Unit  | Test Standard   |
|----------------------------------------------|-----------------|-------|-----------------|
| Melting temperature (10°C/min)               | <b>178 / -</b>  | °C    | ISO 11357-1/-3  |
| Temp. of deflection under load (1.80 MPa)    | <b>150 / -</b>  | °C    | ISO 75-1/-2     |
| Temp. of deflection under load (8.00 MPa)    | <b>80 / -</b>   | °C    | ISO 75-1/-2     |
| Coeff. of linear therm. expansion (parallel) | <b>40 / -</b>   | E-6/K | ISO 11359-1/-2  |
| Coeff. of linear therm. expansion (normal)   | <b>80 / -</b>   | E-6/K | ISO 11359-1/-2  |
| Burning Behav. at thickness h                | <b>HB / -</b>   | class | IEC 60695-11-10 |
| Thickness tested                             | <b>0.8 / -</b>  | mm    | IEC 60695-11-10 |
| Max. usage temperature (long term)           | <b>90 - 120</b> | °C    | ISO 2578        |
| Max. usage temperature (short term)          | <b>150</b>      | °C    | EMS             |

| Electrical properties      | dry / cond      | Unit  | Test Standard |
|----------------------------|-----------------|-------|---------------|
| Volume resistivity         | - / <b>1E11</b> | Ohm*m | IEC 60093     |
| Surface resistivity        | - / <b>1E12</b> | Ohm   | IEC 60093     |
| Electric strength          | - / <b>35</b>   | kV/mm | IEC 60243-1   |
| Comparative tracking index | - / <b>600</b>  | -     | IEC 60112     |

| Other properties    | dry / cond      | Unit              | Test Standard  |
|---------------------|-----------------|-------------------|----------------|
| Water absorption    | <b>1.3 / -</b>  | %                 | Sim. to ISO 62 |
| Humidity absorption | <b>0.8 / -</b>  | %                 | Sim. to ISO 62 |
| Density             | <b>1120 / -</b> | kg/m <sup>3</sup> | ISO 1183       |

| Rheo/Phys properties         | dry / cond     | Unit | Test Standard   |
|------------------------------|----------------|------|-----------------|
| Molding shrinkage (parallel) | <b>0.3 / -</b> | %    | ISO 294-4, 2577 |
| Molding shrinkage (normal)   | <b>0.7 / -</b> | %    | ISO 294-4, 2577 |

#### Characteristics

##### Processing

Injection Molding

##### Product Attributes

Hydrolysis resistant

##### Delivery form

Granules

##### Automotive

Air intake sytems, Compressed air systems, Hydraulic systems, Automotive electr. and electronics, lighting, Cooling and climate control, Fuel systems, Powertrain and Chassis



**Special Characteristics**

High impact or impact modified, Light stabilized or stable to light

**Regional Availability**

North America, Europe, Asia Pacific, South and Central America,  
Near East/Africa

**Electricals & Electronics**

Electrical appliances, Connectors

**Industry & Consumer goods**

Housewares, Hydraulics & Pneumatics, Mechanical Engineering,  
Medical devices, Power transmission, Sanitary, water and gas  
supply, Sports & Leisure, Tools & Accessories

