

# Grilamid L 25 W 40 HL X

PA12-I

EMS-GRIVORY | a unit of EMS-CHEMIE AG

## Product Texts

Product designation according to ISO 1874:

PA12-HIP, EHL, 22-004

| Mechanical properties                  | dry / cond        | Unit              | Test Standard |
|----------------------------------------|-------------------|-------------------|---------------|
| Tensile Modulus                        | <b>380 / 360</b>  | MPa               | ISO 527-1/-2  |
| Yield stress                           | <b>- / 25</b>     | MPa               | ISO 527-1/-2  |
| Yield strain                           | <b>- / 20</b>     | %                 | ISO 527-1/-2  |
| Nominal strain at break                | <b>- / &gt;50</b> | %                 | ISO 527-1/-2  |
| Stress at break                        | <b>40 / 40</b>    | MPa               | ISO 527-1/-2  |
| Strain at break                        | <b>&gt;50 / -</b> | %                 | ISO 527-1/-2  |
| Charpy impact strength (+23°C)         | <b>N / N</b>      | kJ/m <sup>2</sup> | ISO 179/1eU   |
| Charpy impact strength (-30°C)         | <b>N / N</b>      | kJ/m <sup>2</sup> | ISO 179/1eU   |
| Charpy notched impact strength (+23°C) | <b>- / N</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>- / 63</b> | -    | ISO 868       |

| Thermal properties                           | dry / cond      | Unit  | Test Standard   |
|----------------------------------------------|-----------------|-------|-----------------|
| Melting temperature (10°C/min)               | <b>173 / -</b>  | °C    | ISO 11357-1/-3  |
| Temp. of deflection under load (1.80 MPa)    | <b>45 / -</b>   | °C    | ISO 75-1/-2     |
| Temp. of deflection under load (0.45 MPa)    | <b>95 / -</b>   | °C    | ISO 75-1/-2     |
| Coeff. of linear therm. expansion (parallel) | <b>140 / -</b>  | E-6/K | ISO 11359-1/-2  |
| Coeff. of linear therm. expansion (normal)   | <b>180 / -</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>80 - 110</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>- / 32</b>   | kV/mm | IEC 60243-1   |
| Comparative tracking index | <b>- / 600</b>  | -     | IEC 60112     |

| Other properties    | dry / cond      | Unit              | Test Standard  |
|---------------------|-----------------|-------------------|----------------|
| Water absorption    | <b>1.4 / -</b>  | %                 | Sim. to ISO 62 |
| Humidity absorption | <b>0.7 / -</b>  | %                 | Sim. to ISO 62 |
| Density             | <b>1020 / -</b> | kg/m <sup>3</sup> | ISO 1183       |

| Rheo/Phys properties         | dry / cond     | Unit | Test Standard   |
|------------------------------|----------------|------|-----------------|
| Molding shrinkage (parallel) | <b>0.9 / -</b> | %    | ISO 294-4, 2577 |
| Molding shrinkage (normal)   | <b>1.2 / -</b> | %    | ISO 294-4, 2577 |

## Characteristics

### Processing

Other Extrusion

### Regional Availability

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


**Delivery form**

Granules

**Product Attributes**

Flexible, High viscosity

**Additives**

Plasticizer

**Automotive**

Air intake sytems, Fuel systems

**Special Characteristics**

High impact or impact modified, Improved UV resistance (outdoor use), Improved heat resistance

**Industry & Consumer goods**

Hydraulics & Pneumatics

