

Grilamid LVX-50H nat
PA12-GF50

EMS-GRIVORY | a unit of EMS-CHEMIE AG

Product Texts

Product-nomenclature acc. ISO 1874:
PA12, MHR, 18-190, GF50

| Mechanical properties | dry / cond | Unit | Test Standard |
|--|------------------|-------------------|---------------|
| Tensile Modulus | - / 12000 | MPa | ISO 527-1/-2 |
| Stress at break | - / 145 | MPa | ISO 527-1/-2 |
| Strain at break | - / 3.5 | % | ISO 527-1/-2 |
| Charpy impact strength (+23°C) | - / 85 | kJ/m ² | ISO 179/1eU |
| Charpy impact strength (-30°C) | - / 85 | kJ/m ² | ISO 179/1eU |
| Charpy notched impact strength (+23°C) | - / 25 | kJ/m ² | ISO 179/1eA |
| Charpy notched impact strength (-30°C) | - / 20 | kJ/m ² | ISO 179/1eA |

| Thermal properties | dry / cond | Unit | Test Standard |
|--|-----------------|-------|-----------------|
| Melting temperature (10°C/min) | 178 / - | °C | ISO 11357-1/-3 |
| Temp. of deflection under load (1.80 MPa) | 170 / - | °C | ISO 75-1/-2 |
| Temp. of deflection under load (8.00 MPa) | 130 / - | °C | ISO 75-1/-2 |
| Coeff. of linear therm. expansion (parallel) | 15 / - | E-6/K | ISO 11359-1/-2 |
| Coeff. of linear therm. expansion (normal) | 90 / - | E-6/K | ISO 11359-1/-2 |
| Burning Behav. at thickness h | HB / - | class | IEC 60695-11-10 |
| Thickness tested | 0.8 / - | mm | IEC 60695-11-10 |
| Max. usage temperature (long term) | 90 - 120 | °C | ISO 2578 |
| Max. usage temperature (short term) | 150 | °C | EMS |

| Electrical properties | dry / cond | Unit | Test Standard |
|----------------------------|-----------------|-------|---------------|
| Volume resistivity | - / 1E11 | Ohm*m | IEC 60093 |
| Surface resistivity | - / 1E12 | Ohm | IEC 60093 |
| Electric strength | - / 55 | kV/mm | IEC 60243-1 |
| Comparative tracking index | - / 600 | - | IEC 60112 |

| Other properties | dry / cond | Unit | Test Standard |
|---------------------|-----------------|-------------------|----------------|
| Water absorption | 0.8 / - | % | Sim. to ISO 62 |
| Humidity absorption | 0.4 / - | % | Sim. to ISO 62 |
| Density | 1470 / - | kg/m ³ | ISO 1183 |

| Rheo/Phys properties | dry / cond | Unit | Test Standard |
|------------------------------|----------------|------|-----------------|
| Molding shrinkage (parallel) | 0.1 / - | % | ISO 294-4, 2577 |
| Molding shrinkage (normal) | 0.4 / - | % | ISO 294-4, 2577 |

Characteristics

Processing

Injection Molding

Delivery form

Granules

Special Characteristics

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

Product Attributes

Improved flowability and demoulding

Automotive

Compressed air systems, Hydraulic systems, Automotive electr. and electronics, lighting, Fuel systems, Powertrain and Chassis , Interior, Exterior

Electricals & Electronics

Electrical appliances, Electrical equipment, Connectors, Lighting, Mobile phones and other portable devices

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Regional Availability

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

Industry & Consumer goods

Housewares, Hydraulics & Pneumatics, Mechanical Engineering,
Medical devices, Power transmission, Sports & Leisure, Tools &
Accessories
