

**Product Texts**

Product-nomenclature: ISO 16396-PA12,,M1HRC,C18-010

**Product Attributes**

Improved flowability and demoulding, Improved friction & wear properties, Improved impact resistance,  
Improved heat resistance

**Markets**

**Automotive**

Powertrain and Chassis

**Electricals & Electronics**

Cables & Tubes, Connectors

**Industry & Consumer goods**

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

| Processing/Physical Characteristics        | dry / cond     | Unit | Test Standard   |
|--|----------------|------|-----------------|
| <b>ISO Data</b>                            |                |      |                 |
| <sup>[C]</sup> Molding shrinkage, parallel | <b>0.8 / *</b> | %    | ISO 294-4, 2577 |
| <sup>[C]</sup> Molding shrinkage, normal   | <b>0.8 / *</b> | %    | ISO 294-4, 2577 |

[C]: CAMPUS

| Mechanical properties                                | dry / cond        | Unit              | Test Standard |
|--|-------------------|-------------------|---------------|
| <b>ISO Data</b>                                      |                   |                   |               |
| <sup>[C]</sup> Tensile Modulus                       | <b>- / 1100</b>   | MPa               | ISO 527       |
| <sup>[C]</sup> Yield stress                          | <b>- / 40</b>     | MPa               | ISO 527       |
| <sup>[C]</sup> Yield strain                          | <b>- / 12</b>     | %                 | ISO 527       |
| <sup>[C]</sup> Nominal strain at break               | <b>- / &gt;50</b> | %                 | ISO 527       |
| <sup>[C]</sup> Charpy impact strength, +23°C         | <b>- / N</b>      | kJ/m <sup>2</sup> | ISO 179/1eU   |
| <sup>[C]</sup> Charpy impact strength, -30°C         | <b>- / N</b>      | kJ/m <sup>2</sup> | ISO 179/1eU   |
| <sup>[C]</sup> Charpy notched impact strength, +23°C | <b>- / 7</b>      | kJ/m <sup>2</sup> | ISO 179/1eA   |
| <sup>[C]</sup> Charpy notched impact strength, -30°C | <b>- / 6</b>      | kJ/m <sup>2</sup> | ISO 179/1eA   |

[C]: CAMPUS

| Thermal properties   | dry / cond     | Unit  | Test Standard   |
|--|----------------|-------|-----------------|
| <b>ISO Data</b>  |                |       |                 |
| <sup>[C]</sup> Melting temperature, 10°C/min               | <b>178 / *</b> | °C    | ISO 11357-1/-3  |
| <sup>[C]</sup> Temp. of deflection under load, 1.80 MPa    | <b>45 / *</b>  | °C    | ISO 75-1/-2     |
| <sup>[C]</sup> Temp. of deflection under load, 0.45 MPa    | <b>115 / *</b> | °C    | ISO 75-1/-2     |
| <sup>[C]</sup> Coeff. of linear therm. expansion, parallel | <b>120 / *</b> | E-6/K | ISO 11359-1/-2  |
| <sup>[C]</sup> Coeff. of linear therm. expansion, normal   | <b>140 / *</b> | E-6/K | ISO 11359-1/-2  |
| <sup>[C]</sup> Burning Behav. at thickness h               | <b>HB / *</b>  | class | IEC 60695-11-10 |
| Thickness tested   | <b>0.8 / *</b> | mm    | -               |

[C]: CAMPUS

| Electrical properties                     | dry / cond      | Unit  | Test Standard |
|---|-----------------|-------|---------------|
| <b>ISO Data</b>                           |                 |       |               |
| <sup>[C]</sup> Volume resistivity         | <b>- / 1E11</b> | Ohm*m | IEC 62631-3-1 |
| <sup>[C]</sup> Surface resistivity        | <b>* / 1E12</b> | Ohm   | IEC 62631-3-2 |
| <sup>[C]</sup> Electric strength          | <b>- / 32</b>   | kV/mm | IEC 60243-1   |
| <sup>[C]</sup> Comparative tracking index | <b>- / 600</b>  | -     | IEC 60112     |

[C]: CAMPUS

| Other properties                   | dry / cond     | Unit | Test Standard  |
|------------------------------------|----------------|------|----------------|
| <sup>[C]</sup> Water absorption    | <b>1.5 / *</b> | %    | Sim. to ISO 62 |
| <sup>[C]</sup> Humidity absorption | <b>0.7 / *</b> | %    | Sim. to ISO 62 |

# Grilamid L 20 G grey 9280

PA12

EMS-GRIVORY | a unit of EMS-CHEMIE AG

[C] Density

1010 / -

kg/m<sup>3</sup>

ISO 1183

[C]: CAMPUS

## Characteristics

### Processing

Injection Molding, Other Extrusion

### Delivery form

Granules

### Additives

Lubricants

### Special Characteristics

Light stabilized or stable to light, Heat stabilized or stable to heat

### Regional Availability

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