

**Product Texts**

Product-nomenclature: ISO 16396-PA12,GB30,M1HR,C18-020

**Product Attributes**

Improved heat resistance, Improved UV resistance (outdoor use)

**Markets**

**Automotive**

Automotive electr. and electronics, lighting, Powertrain and Chassis

**Electricals & Electronics**

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

**Industry & Consumer goods**

Housewares, Mechanical Engineering, Medical devices, Sanitary, water and gas supply, Tools & Accessories

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Molding shrinkage, parallel	<b>0.9 / *</b>	%	ISO 294-4, 2577
<sup>[C]</sup> Molding shrinkage, normal	<b>1.0 / *</b>	%	ISO 294-4, 2577
<sup>[C]</sup> Density of melt	<b>1040</b>	kg/m <sup>3</sup>	-
<sup>[C]</sup> Thermal conductivity of melt	<b>0.26</b>	W/(m K)	-
<sup>[C]</sup> Spec. heat capacity of melt	<b>2200</b>	J/(kg K)	-
<sup>[C]</sup> Eff. thermal diffusivity	<b>1.14E-7</b>	m <sup>2</sup> /s	-
<sup>[C]</sup> Ejection temperature	<b>155</b>	°C	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Tensile Modulus	<b>2000 / 1600</b>	MPa	ISO 527
<sup>[C]</sup> Yield stress	<b>50 / 45</b>	MPa	ISO 527
<sup>[C]</sup> Yield strain	<b>5 / 10</b>	%	ISO 527
<sup>[C]</sup> Nominal strain at break	<b>15 / 25</b>	%	ISO 527
<sup>[C]</sup> Charpy impact strength, +23°C	<b>170 / 150</b>	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy impact strength, -30°C	<b>45 / 45</b>	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy notched impact strength, +23°C	<b>5 / 5</b>	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Charpy notched impact strength, -30°C	<b>3 / 3</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>50 / *</b>	°C	ISO 75-1/-2
<sup>[C]</sup> Temp. of deflection under load, 8.00 MPa	<b>40 / *</b>	°C	ISO 75-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, parallel	<b>90 / *</b>	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, normal	<b>90 / *</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 / 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>35 / 35</b>	kV/mm	IEC 60243-1
<sup>[C]</sup> Comparative tracking index	<b>- / 600</b>	-	IEC 60112

[C]: CAMPUS

## Grilamid LKN-3H natural

PA12-GB30

EMS-GRIVORY | a unit of EMS-CHEMIE AG

Other properties	dry / cond	Unit	Test Standard
<sup>[C]</sup> Water absorption	<b>1.2 / *</b>	%	Sim. to ISO 62
<sup>[C]</sup> Humidity absorption	<b>0.6 / *</b>	%	Sim. to ISO 62
<sup>[C]</sup> Density	<b>1250 / -</b>	kg/m <sup>3</sup>	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Injection Molding, melt temperature	<b>260</b>	°C	ISO 294
Injection Molding, mold temperature	<b>80</b>	°C	ISO 294
Injection Molding, injection velocity	<b>200</b>	mm/s	ISO 294
Injection Molding, pressure at hold	<b>75</b>	MPa	ISO 294

[C]: CAMPUS

### Characteristics

#### Processing

Injection Molding

#### Delivery form

Granules, Natural Color

#### Special Characteristics

Light stabilized or stable to light, U.V. stabilized or stable to weather, Heat stabilized or stable to heat

#### Applications

Automotive, Electrical and Electronical, Medical

#### Regional Availability

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