

**Product Texts**

Product-nomenclature: ISO 16396-PA12-IP,,EHL1,C22-005

**Product Attributes**

Highly flexible, High viscosity, Improved impact resistance, Improved heat resistance, Plasticised, Improved UV resistance (outdoor use)

**Markets**

**Automotive**

Air intake sytems, Compressed air systems, Hydraulic systems, Fuel systems

**Industry & Consumer goods**

Hydraulics & Pneumatics

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>1.2 / *</b>	%	ISO 294-4, 2577
<sup>[C]</sup> Density of melt	<b>870</b>	kg/m <sup>3</sup>	-
<sup>[C]</sup> Thermal conductivity of melt	<b>0.22</b>	W/(m K)	-
<sup>[C]</sup> Spec. heat capacity of melt	<b>2900</b>	J/(kg K)	-
<sup>[C]</sup> Eff. thermal diffusivity	<b>8.72E-8</b>	m <sup>2</sup> /s	-
<sup>[C]</sup> Ejection temperature	<b>140</b>	°C	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Tensile Modulus	<b>600 / 500</b>	MPa	ISO 527
<sup>[C]</sup> Yield stress	<b>30 / 30</b>	MPa	ISO 527
<sup>[C]</sup> Yield strain	<b>20 / 20</b>	%	ISO 527
<sup>[C]</sup> Nominal strain at break	<b>&gt;50 / &gt;50</b>	%	ISO 527
<sup>[C]</sup> Charpy impact strength, +23°C	<b>N / N</b>	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy impact strength, -30°C	<b>N / N</b>	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy notched impact strength, +23°C	<b>65 / N</b>	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Charpy notched impact strength, -30°C	<b>6 / 7</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>95 / *</b>	°C	ISO 75-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, parallel	<b>140 / *</b>	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, normal	<b>180 / *</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

## Grilamid L 25 W 20 Y black 9992

PA12

EMS-GRIVORY | a unit of EMS-CHEMIE AG

[C] Humidity absorption	<b>0.7 / *</b>	%	Sim. to ISO 62
[C] Density	<b>1020 / -</b>	kg/m <sup>3</sup>	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
<b>ISO Data</b>			
[C] Injection Molding, melt temperature	<b>250</b>	°C	ISO 294
Injection Molding, mold temperature	<b>40</b>	°C	ISO 294
Injection Molding, injection velocity	<b>250</b>	mm/s	ISO 294
Injection Molding, pressure at hold	<b>75</b>	MPa	ISO 294

[C]: CAMPUS

### Characteristics

#### Processing

Other Extrusion

#### Delivery form

Granules, Black

#### Additives

Plasticizer

#### Special Characteristics

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

#### Applications

Automotive

#### Regional Availability

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