

**Product Texts**

Product-nomenclature: ISO 16396-PA612,,EH,S18-020

**Product Attributes**

Improved heat resistance

**Markets**

**Automotive**

Powertrain and Chassis

**Electricals & Electronics**

Electrical appliances, Cables & Tubes

**Industry & Consumer goods**

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

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Molding shrinkage, parallel	1.4 / *	%	ISO 294-4, 2577
<sup>[C]</sup> Molding shrinkage, normal	1.1 / *	%	ISO 294-4, 2577
<sup>[C]</sup> Density of melt	860	kg/m <sup>3</sup>	-
<sup>[C]</sup> Thermal conductivity of melt	0.22	W/(m K)	-
<sup>[C]</sup> Spec. heat capacity of melt	2900	J/(kg K)	-
<sup>[C]</sup> Eff. thermal diffusivity	8.82E-8	m <sup>2</sup> /s	-
<sup>[C]</sup> Ejection temperature	140	°C	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Tensile Modulus	2500 / 2000	MPa	ISO 527
<sup>[C]</sup> Yield stress	70 / 60	MPa	ISO 527
<sup>[C]</sup> Yield strain	5 / 12	%	ISO 527
<sup>[C]</sup> Nominal strain at break	12 / >50	%	ISO 527
<sup>[C]</sup> Charpy impact strength, +23°C	N / N	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy impact strength, -30°C	N / N	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy notched impact strength, +23°C	6 / 6	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Charpy notched impact strength, -30°C	3 / 3	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	215 / *	°C	ISO 11357-1/-3
<sup>[C]</sup> Temp. of deflection under load, 1.80 MPa	75 / *	°C	ISO 75-1/-2
<sup>[C]</sup> Temp. of deflection under load, 0.45 MPa	160 / *	°C	ISO 75-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, parallel	80 / *	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, normal	100 / *	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	-

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Volume resistivity	1E9 / 1E9	Ohm*m	IEC 62631-3-1
<sup>[C]</sup> Surface resistivity	* / 1E10	Ohm	IEC 62631-3-2
<sup>[C]</sup> Electric strength	34 / 32	kV/mm	IEC 60243-1
<sup>[C]</sup> Comparative tracking index	- / 600	-	IEC 60112

[C]: CAMPUS

## Grilamid XE 4159 black 9992

PA612

EMS-GRIVORY | a unit of EMS-CHEMIE AG

Other properties	dry / cond	Unit	Test Standard
<sup>[C]</sup> Water absorption	2.8 / *	%	Sim. to ISO 62
<sup>[C]</sup> Humidity absorption	1.3 / *	%	Sim. to ISO 62
<sup>[C]</sup> Density	1070 / -	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	250	°C	ISO 294
Injection Molding, mold temperature	40	°C	ISO 294
Injection Molding, injection velocity	250	mm/s	ISO 294
Injection Molding, pressure at hold	75	MPa	ISO 294

[C]: CAMPUS

### Characteristics

#### Processing

Injection Molding, Other Extrusion

#### Delivery form

Granules, Black

#### 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