

**Product Texts**

Product-nomenclature: ISO 16396-PA6-I,GF50,M1H,S18-140

**Product Attributes**

Improved impact resistance

**Markets****Automotive**

Air intake systems, Automotive electr. and electronics, lighting, Interior

**Electricals & Electronics**

Electrical appliances, Electrical equipment

**Industry & Consumer goods**

Housewares, Mechanical Engineering, Power transmission

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Molding shrinkage, parallel	0.1 / *	%	ISO 294-4, 2577
<sup>[C]</sup> Molding shrinkage, normal	0.2 / *	%	ISO 294-4, 2577
<sup>[C]</sup> Density of melt	1400	kg/m <sup>3</sup>	-
<sup>[C]</sup> Thermal conductivity of melt	0.29	W/(m K)	-
<sup>[C]</sup> Spec. heat capacity of melt	1900	J/(kg K)	-
<sup>[C]</sup> Eff. thermal diffusivity	1.09E-7	m <sup>2</sup> /s	-
<sup>[C]</sup> Ejection temperature	200	°C	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Tensile Modulus	14000 / 10000	MPa	ISO 527
<sup>[C]</sup> Stress at break	175 / 100	MPa	ISO 527
<sup>[C]</sup> Strain at break	3 / 5	%	ISO 527
<sup>[C]</sup> Charpy impact strength, +23°C	40 / 45	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy impact strength, -30°C	40 / 25	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy notched impact strength, +23°C	12 / 16	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Charpy notched impact strength, -30°C	10 / 10	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Puncture - maximum force, +23°C	5 / 1110	N	ISO 6603-2
<sup>[C]</sup> Puncture energy, +23°C	6 / -	J	ISO 6603-2

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Melting temperature, 10°C/min	222 / *	°C	ISO 11357-1/-3
<sup>[C]</sup> Temp. of deflection under load, 1.80 MPa	200 / *	°C	ISO 75-1/-2
<sup>[C]</sup> Temp. of deflection under load, 8.00 MPa	140 / *	°C	ISO 75-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, parallel	20 / *	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, normal	120 / *	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	1E12 / 1E11	Ohm*m	IEC 62631-3-1
<sup>[C]</sup> Surface resistivity	* / 1E12	Ohm	IEC 62631-3-2
<sup>[C]</sup> Electric strength	40 / 38	kV/mm	IEC 60243-1
<sup>[C]</sup> Comparative tracking index	- / 600	-	IEC 60112

[C]: CAMPUS

## Grilon BG-50 HM black 9697

PA6-GF50

EMS-GRIVORY | a unit of EMS-CHEMIE AG

Other properties	dry / cond	Unit	Test Standard
<sup>[C]</sup> Water absorption	3.5 / *	%	Sim. to ISO 62
<sup>[C]</sup> Humidity absorption	1 / *	%	Sim. to ISO 62
<sup>[C]</sup> Density	1490 / -	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	290	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294
Injection Molding, injection velocity	300	mm/s	ISO 294
Injection Molding, pressure at hold	75	MPa	ISO 294

[C]: CAMPUS

### Characteristics

#### Processing

Injection Molding

#### Delivery form

Granules, Black

#### Special Characteristics

High impact or impact modified

#### Applications

Automotive, Electrical and Electronical

#### Regional Availability

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