

**Grilamid 1SVX-50H nat**

PA1010-GF50

EMS-GRIVORY | a unit of EMS-CHEMIE AG

**Product Texts**

 Product-nomenclature according to ISO 1874:  
 PA1010, MH, 14-140, GF50

Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	<b>14500 / 13000</b>	MPa	ISO 527-1/-2
Stress at break	<b>200 / 160</b>	MPa	ISO 527-1/-2
Strain at break	<b>3 / 3</b>	%	ISO 527-1/-2
Charpy impact strength (+23°C)	<b>100 / 100</b>	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength (-30°C)	<b>85 / 85</b>	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength (+23°C)	<b>20 / 20</b>	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength (-30°C)	<b>18 / 18</b>	kJ/m <sup>2</sup>	ISO 179/1eA

Thermal properties	dry / cond	Unit	Test Standard
Melting temperature (10°C/min)	<b>200 / -</b>	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	<b>190 / -</b>	°C	ISO 75-1/-2
Temp. of deflection under load (8.00 MPa)	<b>160 / -</b>	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	<b>10 / -</b>	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	<b>80 / -</b>	E-6/K	ISO 11359-1/-2
Burning Behav. at thickness h	<b>HB / -</b>	class	IEC 60695-11-10
Thickness tested	<b>0.8 / -</b>	mm	IEC 60695-11-10
Max. usage temperature (long term)	<b>100</b>	°C	ISO 2578
Max. usage temperature (short term)	<b>150</b>	°C	EMS

Electrical properties	dry / cond	Unit	Test Standard
Volume resistivity	<b>1E11 / -</b>	Ohm*m	IEC 60093
Surface resistivity	<b>- / 1E12</b>	Ohm	IEC 60093
Comparative tracking index	<b>600 / -</b>	-	IEC 60112

Other properties	dry / cond	Unit	Test Standard
Water absorption	<b>2 / -</b>	%	Sim. to ISO 62
Humidity absorption	<b>0.6 / -</b>	%	Sim. to ISO 62
Density	<b>1510 / -</b>	kg/m <sup>3</sup>	ISO 1183

Rheo/Phys properties	dry / cond	Unit	Test Standard
Molding shrinkage (parallel)	<b>0.1 / -</b>	%	ISO 294-4, 2577
Molding shrinkage (normal)	<b>0.4 / -</b>	%	ISO 294-4, 2577

**Characteristics**
**Processing**

Injection Molding

**Delivery form**

Granules

**Special Characteristics**

 High impact or impact modified, Light stabilized or stable to light,  
 Improved UV resistance (outdoor use)

**Product Attributes**

Improved flowability and demoulding, Bio based Polyamide

**Automotive**

 Compressed air systems, Hydraulic systems, Automotive electr.  
 and electronics, lighting, Fuel systems, Powertrain and Chassis ,  
 Interior, Exterior

**Electricals & Electronics**

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