

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	14500 / 13000	MPa	ISO 527-1/-2
Stress at break	200 / 160	MPa	ISO 527-1/-2
Strain at break	3 / 3	%	ISO 527-1/-2
Charpy impact strength (+23°C)	100 / 100	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	85 / 85	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	20 / 20	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	18 / 18	kJ/m ²	ISO 179/1eA

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

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

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

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