

Grilamid XE 4180 nat
 PA1010

EMS-GRIVORY | a unit of EMS-CHEMIE AG

Product Texts

 Product-nomenclature according to ISO 1874:
 PA1010-HIP, E, 24-005

Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	600 / 480	MPa	ISO 527-1/-2
Stress at 50% strain	30 / 30	MPa	ISO 527-1/-2
Strain at break	>50 / >50	%	ISO 527-1/-2
Charpy impact strength (+23°C)	N / N	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	N / N	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	N / N	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	5 / 5	kJ/m ²	ISO 179/1eA

Thermal properties	dry / cond	Unit	Test Standard
Melting temperature (10°C/min)	194 / -	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	55 / -	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	115 / -	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	170 / -	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	120 / -	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

Electrical properties	dry / cond	Unit	Test Standard
Volume resistivity	1E9 / 1E9	Ohm*m	IEC 60093
Surface resistivity	- / 1E10	Ohm	IEC 60093
Electric strength	35 / 35	kV/mm	IEC 60243-1
Comparative tracking index	- / 600	-	IEC 60112

Other properties	dry / cond	Unit	Test Standard
Water absorption	1.5 / -	%	Sim. to ISO 62
Humidity absorption	0.6 / -	%	Sim. to ISO 62
Density	1050 / -	kg/m ³	ISO 1183

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)

Regional Availability

North America, Europe, Asia Pacific

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

Industry & Consumer goods

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