

Grilamid XE 4181 nat
PA1010

EMS-GRIVORY | a unit of EMS-CHEMIE AG

Product Texts

Product-nomenclature according to ISO 1874:
PA1010-HIP, E, 24-007

Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	800 / 600	MPa	ISO 527-1/-2
Yield stress	40 / 35	MPa	ISO 527-1/-2
Yield strain	30 / 30	%	ISO 527-1/-2
Nominal 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)	70 / N	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	- / 55	kJ/m ²	ISO 179/1eA

Thermal properties	dry / cond	Unit	Test Standard
Melting temperature (10°C/min)	197 / -	°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)	125 / -	°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)	110 / -	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 / 1E8	Ohm*m	IEC 60093
Surface resistivity	- / 1E11	Ohm	IEC 60093
Electric strength	39 / 37	kV/mm	IEC 60243-1
Comparative tracking index	- / 600	-	IEC 60112

Other properties	dry / cond	Unit	Test Standard
Water absorption	1.3 / -	%	Sim. to ISO 62
Humidity absorption	0.7 / -	%	Sim. to ISO 62
Density	1050 / -	kg/m ³	ISO 1183

Characteristics

Processing

Other Extrusion

Delivery form

Granules

Special Characteristics

High impact or impact modified, Improved UV resistance (outdoor use), Improved heat resistance

Regional Availability

North America, Europe, Asia Pacific

Product Attributes

Flexible, High viscosity, Bio based Polyamide

Automotive

Air intake systems, Compressed air systems, Hydraulic systems, Fuel systems

Electricals & Electronics

Cables & Tubes

Industry & Consumer goods

Hydraulics & Pneumatics