

Grilamid XE 4105 nat
PA610-GF50

EMS-GRIVORY | a unit of EMS-CHEMIE AG

Product Texts

Product-nomenclature according to ISO 1874:

PA610, MHR, 22-090, GF50

Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	15500 / 12000	MPa	ISO 527-1/-2
Stress at break	210 / 165	MPa	ISO 527-1/-2
Strain at break	4 / 5.5	%	ISO 527-1/-2
Charpy impact strength (+23°C)	95 / 90	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	95 / 90	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	17 / 20	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	14 / 14	kJ/m ²	ISO 179/1eA

Mechanical properties (TPE)	dry / cond	Unit	Test Standard
Ball indentation hardness	225 / 165	MPa	ISO 2039-1

Thermal properties	dry / cond	Unit	Test Standard
Melting temperature (10°C/min)	225 / -	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	200 / -	°C	ISO 75-1/-2
Temp. of deflection under load (8.00 MPa)	150 / -	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	20 / -	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 - 130	°C	ISO 2578
Max. usage temperature (short term)	160	°C	EMS

Electrical properties	dry / cond	Unit	Test Standard
Volume resistivity	1E10 / 1E10	Ohm*m	IEC 60093
Surface resistivity	- / 1E11	Ohm	IEC 60093
Electric strength	42 / 41	kV/mm	IEC 60243-1
Comparative tracking index	- / 600	-	IEC 60112

Other properties	dry / cond	Unit	Test Standard
Water absorption	1.9 / -	%	Sim. to ISO 62
Humidity absorption	0.8 / -	%	Sim. to ISO 62
Density	1530 / -	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)	0.7 / -	%	ISO 294-4, 2577

Characteristics

Processing

Injection Molding

Product Attributes

Bio based Polyamide

Delivery form

Granules

Automotive

Air intake systems, Compressed air systems, Hydraulic systems, Automotive electr. and electronics, lighting, Cooling and climate control, Fuel systems, Powertrain and Chassis , Interior, Exterior

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Special Characteristics

Light stabilized or stable to light, Improved UV resistance (outdoor use), Improved heat resistance

Electricals & Electronics

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

Regional Availability

North America, Europe, Asia Pacific

Industry & Consumer goods

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