

Grilamid XE 4028 nat
PA12/MACMI

EMS-GRIVORY | a unit of EMS-CHEMIE AG

Product Texts

Product designation according to ISO 1874:
PA 12/MACMI, GT, 11-020

Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	- / 2200	MPa	ISO 527-1/-2
Yield stress	- / 75	MPa	ISO 527-1/-2
Yield strain	- / 9	%	ISO 527-1/-2
Nominal strain at break	- / >50	%	ISO 527-1/-2
Stress at break	- / 50	MPa	ISO 527-1/-2
Strain at break	- / >50	%	ISO 527-1/-2
Charpy impact strength (+23°C)	- / N	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	- / N	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	- / 8	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	- / 7	kJ/m ²	ISO 179/1eA

Mechanical properties (TPE)	dry / cond	Unit	Test Standard
Ball indentation hardness	- / 120	MPa	ISO 2039-1

Thermal properties	dry / cond	Unit	Test Standard
Glass transition temperature (10°C/min)	160 / -	°C	ISO 11357-1/-2
Temp. of deflection under load (1.80 MPa)	130 / -	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	145 / -	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	80 / -	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)	80 - 100	°C	ISO 2578
Max. usage temperature (short term)	120	°C	EMS

Electrical properties	dry / cond	Unit	Test Standard
Volume resistivity	- / 1E11	Ohm*m	IEC 60093
Surface resistivity	- / 1E12	Ohm	IEC 60093
Electric strength	- / 31	kV/mm	IEC 60243-1
Comparative tracking index	- / 600	-	IEC 60112

Other properties	dry / cond	Unit	Test Standard
Water absorption	3.5 / -	%	Sim. to ISO 62
Humidity absorption	1.5 / -	%	Sim. to ISO 62
Density	1060 / -	kg/m ³	ISO 1183

Rheo/Phys properties	dry / cond	Unit	Test Standard
Molding shrinkage (parallel)	0.6 / -	%	ISO 294-4, 2577
Molding shrinkage (normal)	0.7 / -	%	ISO 294-4, 2577

Characteristics

Processing

Extrusion - blow molding, Other Extrusion, Injection (stretch) blow molding

Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

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Delivery form

Granules

Packaging

Blow moulded containers, Injectionstretchblowmoulded containers

Special Characteristics

Transparent

Food Contact

EU Requirements, FDA
