

Grilamid TR XE 4010

EMS-GRIVORY | a unit of EMS-CHEMIE AG

Product Texts

Product designation according to ISO 1874: PA MACM10/1010, GTL, 18-020

Mechanical properties	dry / cond	Unit	Test Standard
Tensile Modulus	- / 1700	MPa	ISO 527-1/-2
Yield stress	- / 65	MPa	ISO 527-1/-2
Yield strain	-/7	%	ISO 527-1/-2
Stress at break	- / 55	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)	-/ 10	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	-/ 10	kJ/m ²	ISO 179/1eA
	-710	K0/111	
Mechanical properties (TPE)	dry / cond	Unit	Test Standard
Ball indentation hardness	- / 110	MPa	ISO 2039-1
Thermal properties	dry / cond	Unit	Test Standard
Glass transition temperature (10°C/min)	118/-	°C	ISO 11357-1/-2
Temp. of deflection under load (1.80 MPa)	90 / -	<u> </u>	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	105 / -	<u> </u>	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	100 / -	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	100 / -	E-6/K	ISO 11359-1/-2
Max. usage temperature (long term)	60 - 80	°C	EMS
Max. usage temperature (short term)	90	<u> </u>	EMS
	30	0	LIVIS
Electrical properties	dry / cond	Unit	Test Standard
Volume resistivity	- / 1E9	Ohm*m	IEC 60093
Surface resistivity	- / 1E11	Ohm	IEC 60093
Electric strength	- / 40	kV/mm	IEC 60243-1
Comparative tracking index	- / 600	-	IEC 60112
Other properties	dry / cond	Unit	Test Standard
Water absorption	3.8 / -	%	Sim. to ISO 62
Humidity absorption	1.8 / -	%	Sim. to ISO 62
Density	1020 / -	kg/m ³	ISO 1183
Density	10207	Kg/m	
Rheo/Phys properties	dry / cond	Unit	Test Standard
Molding shrinkage (parallel)	0.5 / -	%	ISO 294-4, 2577
Molding shrinkage (normal)	0.5 / -	%	ISO 294-4, 2577
Characteristics			

Processing	Product Attributes	
Injection Molding	Hydrolysis resistant, Bio based Polyamide, Co Polyamide, Transparent Polyamide	
Delivery form		
Granules	Automotive Compressed air systems, Fuel systems	

Created: 2015-05-05 Source: www.materialdatacenter.com

Page: 1/2 The values are intended to serve as an aid in preselecting materials and for an overview of the EMS-GRIVORY product range. The information contained in this publication is based on our present knowledge and experience. The given figures and data are guidance values and do not represent binding material specifications. No warranties of any kind, either express or implied, including warranties of merchantability or fitness for a particular purpose, are given regarding products, design, data and information. The customer is not released from his obligation to investigate the products fitness and the suitability for the intended application, compliance with legal requirements and intellectual property rights. We reserve the right to change the information at any time and without prior notice. The information in this publication is not to be considered a contractual obligation and anyliability whatsoever is expressly declined. For further questions about our products please contact our experts.

EMS-GRIVORY | a unit of EMS-CHEMIE AG

Additives

Lubricants

Special Characteristics

High impact or impact modified

Regional Availability

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

Electricals & Electronics

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

Industry & Consumer goods

Housewares, Mechanical Engineering, Medical devices

Optics

Spectacle frames

Created: 2015-05-05 Source: www.materialdatacenter.com

Page: 2/2

The values are intended to serve as an aid in preselecting materials and for an overview of the EMS-GRIVORY product range. The information contained in this publication is based on our present knowledge and experience. The given figures and data are guidance values and do not represent binding material specifications. No warranties of any kind, either express or implied, including warranties of merchantability or fitness for a particular purpose, are given regarding products, design, data and information. The customer is not released from his obligation to investigate the products fitness and the suitability for the intended application, compliance with legal requirements and intellectual property rights. We reserve the right to change the information at any time and without prior notice. The information is not to be considered a contractual obligation and anyliability whatsoever is expressly declined. For further questions about our products please contact our experts.