

Product Texts

Product-nomenclature: ISO 16396-PA12/MACMI PA 12-I,,GHLT,C12-020

Co Polyamide

Transparent Polyamide

Product Attributes

Improved alcohol resistance, Improved impact resistance, Highly transparent

Markets

Automotive

Cooling and climate control, Fuel systems, Powertrain and Chassis

Electricals & Electronics

Electrical appliances, Electrical equipment

Industry & Consumer goods

Housewares, Mechanical Engineering, Medical devices, Power transmission, Sanitary, water and gas supply, Sports & Leisure, Tools & Accessories

Optics

Optical components, Safety glasses, Spectacle frames

Approvals

Burning Behaviour

UL V2

Potable Water Contact

NSF 61

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	0.5 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	0.6 / *	%	ISO 294-4, 2577
^[C] Density of melt	970	kg/m ³	-
^[C] Thermal conductivity of melt	0.2	W/(m K)	-
^[C] Spec. heat capacity of melt	2200	J/(kg K)	-
^[C] Eff. thermal diffusivity	9.37E-8	m ² /s	-
^[C] Ejection temperature	110	°C	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	- / 1600	MPa	ISO 527
^[C] Yield stress	- / 55	MPa	ISO 527
^[C] Yield strain	- / 6	%	ISO 527
^[C] Nominal strain at break	- / >50	%	ISO 527
^[C] Charpy impact strength, +23°C	- / N	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	- / N	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	- / 20	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	- / 8	kJ/m ²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Glass transition temperature, 10°C/min	110 / *	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	75 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	85 / *	°C	ISO 75-1/-2
^[C] Coeff. of linear therm. expansion, parallel	110 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	110 / *	E-6/K	ISO 11359-1/-2

Grilamid TR 55 LZ natural

PA12/MACMI

EMS-GRIVORY | a unit of EMS-CHEMIE AG

^[C] Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	-

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Volume resistivity	- / 1E11	Ohm*m	IEC 62631-3-1
^[C] Surface resistivity	* / 1E12	Ohm	IEC 62631-3-2
^[C] Electric strength	- / 32	kV/mm	IEC 60243-1
^[C] Comparative tracking index	- / 600	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Water absorption	2.5 / *	%	Sim. to ISO 62
^[C] Humidity absorption	1 / *	%	Sim. to ISO 62
^[C] Density	1020 / -	kg/m ³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
^[C] Injection Molding, melt temperature	265	°C	ISO 294
Injection Molding, mold temperature	30	°C	ISO 294
Injection Molding, injection velocity	250	mm/s	ISO 294
Injection Molding, pressure at hold	75	MPa	ISO 294

[C]: CAMPUS

Characteristics

Processing

Injection Molding

Delivery form

Granules, Natural Color

Special Characteristics

High impact or impact modified, Transparent

Features

Copolymer

Certifications

Drinking water contact, Drinking water contact NSF 61

Applications

Automotive, Electrical and Electronical, Medical, Sports Equipment

Regional Availability

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

Other text information

Other extrusion

-- PIPE EXTRUSION --

-- SHEATING --

PROCESSING

Melt temperature : 250-270 °C

Feeding bush : 60-90

Barrel temp. profile : 240-250 °C

Head temp. : 250-240 °C

Please consider the information about the application of the materials.