

**Product Texts**

Product-nomenclature: ISO 16396-PAMACM12-I,,GT,C14-020

Co Polyamide

Transparent Polyamide

**Product Attributes**

Hydrolysis resistant, Improved impact resistance, Highly transparent, Improved UV resistance (outdoor use)

**Markets**

**Automotive**

Compressed air systems, Fuel systems, Interior, Exterior

**Electricals & Electronics**

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

**Industry & Consumer goods**

Housewares, Hydraulics & Pneumatics, Mechanical Engineering, Medical devices

**Optics**

Spectacle frames

<b>Processing/Physical Characteristics</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
<sup>[C]</sup> Molding shrinkage, parallel	<b>0.9 / *</b>	%	ISO 294-4, 2577
<sup>[C]</sup> Molding shrinkage, normal	<b>0.9 / *</b>	%	ISO 294-4, 2577

[C]: CAMPUS

<b>Mechanical properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
<sup>[C]</sup> Tensile Modulus	<b>- / 1300</b>	MPa	ISO 527
<sup>[C]</sup> Yield stress	<b>- / 50</b>	MPa	ISO 527
<sup>[C]</sup> Yield strain	<b>- / 7</b>	%	ISO 527
<sup>[C]</sup> Nominal strain at break	<b>- / &gt;50</b>	%	ISO 527
<sup>[C]</sup> Charpy impact strength, +23°C	<b>- / N</b>	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy impact strength, -30°C	<b>- / N</b>	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy notched impact strength, +23°C	<b>- / 22</b>	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Charpy notched impact strength, -30°C	<b>- / 15</b>	kJ/m <sup>2</sup>	ISO 179/1eA

[C]: CAMPUS

<b>Thermal properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
<sup>[C]</sup> Glass transition temperature, 10°C/min	<b>155 / *</b>	°C	ISO 11357-1/-2
<sup>[C]</sup> Temp. of deflection under load, 1.80 MPa	<b>110 / *</b>	°C	ISO 75-1/-2
<sup>[C]</sup> Temp. of deflection under load, 0.45 MPa	<b>135 / *</b>	°C	ISO 75-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, parallel	<b>90 / *</b>	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, normal	<b>90 / *</b>	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Burning Behav. at thickness h	<b>HB / *</b>	class	IEC 60695-11-10
Thickness tested	<b>0.8 / *</b>	mm	-

[C]: CAMPUS

<b>Electrical properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
<sup>[C]</sup> Volume resistivity	<b>- / 1E11</b>	Ohm*m	IEC 62631-3-1
<sup>[C]</sup> Surface resistivity	<b>* / 1E12</b>	Ohm	IEC 62631-3-2

## Grilamid TR 90 NZ natural

PAMACM12

EMS-GRIVORY | a unit of EMS-CHEMIE AG

[C] Electric strength	- / 34	kV/mm	IEC 60243-1
[C] Comparative tracking index	- / 600	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Water absorption	3 / *	%	Sim. to ISO 62
[C] Humidity absorption	1.5 / *	%	Sim. to ISO 62
[C] Density	1000 / -	kg/m <sup>3</sup>	ISO 1183

[C]: CAMPUS

### Characteristics

#### Processing

Injection Molding, Other Extrusion

#### Features

Copolymer

#### Delivery form

Granules, Natural Color

#### Chemical Resistance

Hydrolytically Stable

#### Additives

Lubricants

#### Applications

Automotive, Electrical and Electronical, Medical

#### Special Characteristics

High impact or impact modified, U.V. stabilized or stable to weather, Transparent

#### Regional Availability

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