

**Product Texts**

Product-nomenclature: ISO 16396-PA610,,M1HLR,S22-020N

Bio based Polyamide

**Product Attributes**

Improved heat resistance

**Markets**

**Automotive**

Compressed air systems, Hydraulic systems, Automotive electr. and electronics, lighting, Powertrain and Chassis, Interior, Exterior

**Electricals & Electronics**

Electrical appliances, Cables & Tubes, Connectors

**Industry & Consumer goods**

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

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Molding shrinkage, parallel	1.3 / *	%	ISO 294-4, 2577
<sup>[C]</sup> Molding shrinkage, normal	1.4 / *	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Tensile Modulus	2400 / 1400	MPa	ISO 527
<sup>[C]</sup> Yield stress	65 / 50	MPa	ISO 527
<sup>[C]</sup> Yield strain	5 / 15	%	ISO 527
<sup>[C]</sup> Nominal strain at break	35 / >50	%	ISO 527
<sup>[C]</sup> Charpy impact strength, +23°C	N / N	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy impact strength, -30°C	N / N	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy notched impact strength, +23°C	7 / 13	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Charpy notched impact strength, -30°C	5 / 5	kJ/m <sup>2</sup>	ISO 179/1eA

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Melting temperature, 10°C/min	222 / *	°C	ISO 11357-1/-3
<sup>[C]</sup> Temp. of deflection under load, 1.80 MPa	55 / *	°C	ISO 75-1/-2
<sup>[C]</sup> Temp. of deflection under load, 0.45 MPa	140 / *	°C	ISO 75-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, parallel	110 / *	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, normal	90 / *	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> 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
<b>ISO Data</b>			
<sup>[C]</sup> Volume resistivity	1E9 / 1E9	Ohm*m	IEC 62631-3-1
<sup>[C]</sup> Surface resistivity	* / 1E10	Ohm	IEC 62631-3-2
<sup>[C]</sup> Electric strength	35 / 30	kV/mm	IEC 60243-1
<sup>[C]</sup> Comparative tracking index	- / 600	-	IEC 60112

[C]: CAMPUS

<b>Other properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<sup>[C]</sup> Water absorption	<b>3.5 / *</b>	%	Sim. to ISO 62
<sup>[C]</sup> Humidity absorption	<b>1.5 / *</b>	%	Sim. to ISO 62
<sup>[C]</sup> Density	<b>1080 / -</b>	kg/m <sup>3</sup>	ISO 1183

[C]: CAMPUS

**Characteristics****Processing**

Injection Molding, Film Extrusion, Profile Extrusion, Sheet Extrusion, Other Extrusion, Calandering

**Delivery form**

Granules, Natural Color

**Additives**

Release agent

**Special Characteristics**

Light stabilized or stable to light, Heat stabilized or stable to heat

**Certifications**

Contains renewable resources

**Applications**

Automotive, Electrical and Electronical, Sports Equipment

**Regional Availability**

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