

Product Texts

Product-nomenclature: ISO 16396-PA12,GF23,M1H,C18-060

Product Attributes

Hydrolysis resistant, Improved impact resistance, Improved heat resistance, Improved UV resistance (outdoor use)

Markets

Automotive

Compressed air systems, Hydraulic systems, Automotive electr. and electronics, lighting, Cooling and climate control, Fuel systems, Powertrain and Chassis

Electricals & Electronics

Electrical appliances, Connectors

Industry & Consumer goods

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

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	0.1 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	0.7 / *	%	ISO 294-4, 2577
^[C] Density of melt	1010	kg/m ³	-
^[C] Thermal conductivity of melt	0.24	W/(m K)	-
^[C] Spec. heat capacity of melt	2300	J/(kg K)	-
^[C] Eff. thermal diffusivity	1.03E-7	m ² /s	-
^[C] Ejection temperature	155	°C	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	5800 / 5000	MPa	ISO 527
^[C] Stress at break	100 / 95	MPa	ISO 527
^[C] Strain at break	6 / 9	%	ISO 527
^[C] Charpy impact strength, +23°C	- / 80	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	- / 85	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	- / 12	kJ/m ²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	178 / *	°C	ISO 11357-1/-3
^[C] Temp. of deflection under load, 1.80 MPa	155 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 8.00 MPa	80 / *	°C	ISO 75-1/-2
^[C] Coeff. of linear therm. expansion, parallel	20 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	150 / *	E-6/K	ISO 11359-1/-2
^[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	- / 35	kV/mm	IEC 60243-1
^[C] Comparative tracking index	- / 600	-	IEC 60112

[C]: CAMPUS

Grilamid LV-23H natural

PA12-GF23

EMS-GRIVORY | a unit of EMS-CHEMIE AG

Other properties	dry / cond	Unit	Test Standard
^[C] Water absorption	1.2 / *	%	Sim. to ISO 62
^[C] Humidity absorption	0.6 / *	%	Sim. to ISO 62
^[C] Density	1170 / -	kg/m ³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
^[C] Injection Molding, melt temperature	280	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294
Injection Molding, injection velocity	300	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, Light stabilized or stable to light, U.V. stabilized or stable to weather, Heat stabilized or stable to heat

Chemical Resistance

Hydrolytically Stable

Applications

Automotive, Electrical and Electronical, Medical, Sports Equipment

Regional Availability

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