Grilamid LV-3H black 9590

PA12-GF30 EMS-GRIVORY | a unit of EMS-CHEMIE AG

Product Texts

Product-nomenclature: ISO16396-PA12,GF30,M1HR,C18-060

Product Attributes

Hydrolysis resistant, Improved impact resistance, Improved heat resistance

Markets

Automotive

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

Electricals & Electronics

Electrical appliances, Connectors, Mobile phones and other portable devices

Industry & Consumer goods

Heating systems, 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	**0.8 / ***	%	ISO 294-4, 2577
[C] Density of melt	**1050**	kg/m³	-
[C] Thermal conductivity of melt	**0.26**	W/(m K)	-
[C] Spec. heat capacity of melt	**2200**	J/(kg K)	-
[C] Eff. thermal diffusivity	**1.13E-7**	m²/s	-
[C] Ejection temperature	**155**	°C	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**7000 / 6000**	MPa	ISO 527
[C] Stress at break	**120 / 105**	MPa	ISO 527
[C] Strain at break	**6 / 8**	%	ISO 527
[C] Charpy impact strength, +23°C	**80 / 80**	kJ/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**80 / 80**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**20 / 20**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**15 / 15**	kJ/m²	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	**160 / ***	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 8.00 MPa	**90 / ***	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	**170 / ***	°C	ISO 306
[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 / 1E11**	Ohm*m	IEC 62631-3-1
[C] Surface resistivity	*** / 1E12**	Ohm	IEC 62631-3-2
[C] Electric strength	**35 / 35**	kV/mm	IEC 60243-1
[C] Comparative tracking index	**- / 550**	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Water absorption	**1.1 / ***	%	Sim. to ISO 62
[C] Humidity absorption	**0.6 / ***	%	Sim. to ISO 62
[C] Density	**1220 / -**	kg/m³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
[C] Injection Molding, melt temperature	**260**	°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, Black

Special Characteristics
High impact or impact modified, Light stabilized or stable to light, 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