

Product Texts

Product-nomenclature: ISO 16396-PA12,,M1HR,C18-010

Product Attributes

Improved flowability and demoulding, Improved heat resistance, Improved UV resistance (outdoor use)

Markets

Automotive

Powertrain and Chassis

Electricals & Electronics

Connectors

Industry & Consumer goods

Housewares, Mechanical Engineering, Medical devices, Sports & Leisure, Tools & Accessories

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	0.8 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	0.8 / *	%	ISO 294-4, 2577
^[C] Density of melt	860	kg/m ³	-
^[C] Thermal conductivity of melt	0.22	W/(m K)	-
^[C] Spec. heat capacity of melt	2900	J/(kg K)	-
^[C] Eff. thermal diffusivity	8.82E-8	m ² /s	-
^[C] Ejection temperature	140	°C	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	1600 / 1100	MPa	ISO 527
^[C] Yield stress	45 / 40	MPa	ISO 527
^[C] Yield strain	5 / 12	%	ISO 527
^[C] Nominal strain at break	>50 / >50	%	ISO 527
^[C] Charpy impact strength, +23°C	N / N	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	N / N	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	7 / 7	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	6 / 6	kJ/m ²	ISO 179/1eA
^[C] Shore D hardness	70 / *	-	ISO 7619-1

[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	45 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	115 / *	°C	ISO 75-1/-2
^[C] Coeff. of linear therm. expansion, parallel	120 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	140 / *	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	- / 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	1.5 / *	%	Sim. to ISO 62
^[C] Humidity absorption	0.7 / *	%	Sim. to ISO 62
^[C] Density	1010 / -	kg/m ³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
^[C] Injection Molding, melt temperature	250	°C	ISO 294
Injection Molding, mold temperature	40	°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

Additives

Lubricants

Special Characteristics

Light stabilized or stable to light, U.V. stabilized or stable to weather, Heat stabilized or stable to heat

Applications

Automotive, Electrical and Electronical, Medical, Sports Equipment

Regional Availability

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