Elix ABS P2MC

Electroplating grade

Property	Test Condition	Unit	Standard	Value
Rheological properties				
Molding shrinkage, normal	60x60x2	%	ISO 294-4	0.4 - 0.7
Melt volume-flow rate	220 °C; 10 kg	cm³/(10 min)	ISO 1133	25
Molding shrinkage, parallel	60x60x2	%	ISO 294-4	0.4 - 0.7
Mechanical properties (23 °C/50 % r. h.)				
Yield stress	50 mm/min	MPa	ISO 527-1,-2	40
Tensile Strain at break	50 mm/min	%	acc. ISO 527-1,-2	> 15
Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	2200
Flexural strength	2 mm/min	MPa	ISO 178	62
Flexural modulus	2 mm/min	MPa	ISO 178	2100
Izod notched impact strength	23 °C	kJ/m²	ISO 180-1A	23
Izod notched impact strength	-30 °C	kJ/m²	ISO 180-1A	12
Yield strain	50 mm/min	%	ISO 527-1,-2	2.4
Charpy impact strength	23 °C	kJ/m²	ISO 179-1eU	N
Charpy impact strength	-30 °C	kJ/m²	ISO 179-1eU	150
Charpy notched impact strength	23 °C	kJ/m²	ISO 179-1eA	24
Charpy notched impact strength	-30 °C	kJ/m²	ISO 179-1eA	14
Ball indentation hardness		N/mm²	ISO 2039-1	90
Thermal properties				
Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	94
Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	96
Vicat softening temperature	50 N; 50 °C/h	°C	ISO 306	95
Burning behavior UL 94 (1.6 mm)	1.6 mm	Class	UL 94	HB
Coefficient of linear thermal expansion, parallel	23 to 55 °C	10^{-4}/K	ISO 11359-1,-2	1.0
Burning rate (US-FMVSS)	2.0 mm	mm/min	ISO 3795	55
Glow wire test (GWFI)	2.0 mm	°C	IEC 60695-2-12	700
Electrical properties (23 °C/50 % r. h.)				
Relative permittivity	100 Hz	-	IEC 60250	3.0
Relative permittivity	1 MHz	-	IEC 60250	2.9
Dissipation factor	100 Hz	10^{-4}	IEC 60250	50
Dissipation factor	1 MHz	10^{-4}	IEC 60250	80
Volume resistivity		Ohm·m	IEC 60093	1E13
Surface resistivity		Ohm	IEC 60093	1E15
Electric strength	1 mm	kV/mm	IEC 60243-1	37
Comparative tracking index CTI	Solution A	Rating	IEC 60112	600
Other properties (23 °C)				
Density		g/cm³	ISO 1183	1.030

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Property	Test Condition	Unit	Standard	Value
Processing conditions for test specimens				
Injection molding-Melt temperature		°C	ISO 294	240
Injection molding-Mold temperature		°C	ISO 294	70
Injection molding-Injection velocity		mm/s	ISO 294	240

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