

Product Texts

Injection Molding, 40% Mineral Reinforced, Heat Stabilized, Low Warpage

ISO 1043 PA6-MX40

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	6000 / 2200	MPa	ISO 527
^[C] Stress at break	85 / 50	MPa	ISO 527
^[C] Strain at break	7 / 40	%	ISO 527
^[C] Charpy impact strength, +23°C	120 / N	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	90 / 90	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	- / 12	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	- / 10	kJ/m ²	ISO 179/1eA
^[C] Puncture - maximum force, +23°C	3050 / -	N	ISO 6603-2
^[C] Puncture - maximum force, -30°C	825 / -	N	ISO 6603-2
^[C] Puncture energy, +23°C	9.2 / -	J	ISO 6603-2
^[C] Puncture energy, -30°C	1.6 / -	J	ISO 6603-2

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	222 / *	°C	ISO 11357-1/-3
^[C] Temp. of deflection under load, 1.80 MPa	90 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	190 / *	°C	ISO 75-1/-2
^[C] Coeff. of linear therm. expansion, parallel	60 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	70 / *	E-6/K	ISO 11359-1/-2
^[C] Oxygen index	26 / *	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 100Hz	4.4 / 15	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	4 / 4.7	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	110 / 2500	E-4	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	150 / 1000	E-4	IEC 62631-2-1
^[C] Volume resistivity	1E13 / 1E9	Ohm*m	IEC 62631-3-1
^[C] Surface resistivity	* / 1E13	Ohm	IEC 62631-3-2
^[C] Electric strength	35 / 38	kV/mm	IEC 60243-1
^[C] Comparative tracking index	525 / -	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Water absorption	6 / *	%	Sim. to ISO 62
^[C] Humidity absorption	1.9 / *	%	Sim. to ISO 62
^[C] Density	1460 / -	kg/m ³	ISO 1183

[C]: CAMPUS

Material specific properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Viscosity number	142 / *	cm ³ /g	ISO 307, 1157, 1628

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
^[C] Injection Molding, melt temperature	290	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80	°C	-
Pre-drying - Time	2 - 6	h	-
Processing humidity	≤0.12	%	-
Melt temperature	280 - 300	°C	-
Mold temperature	80 - 120	°C	-

Characteristics**Processing**

Injection Molding

Delivery form

Pellets

Additives

Release agent

Special Characteristics

Heat stabilized or stable to heat

Features

Low Warpage

Regional Availability

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

Other text information**Injection molding**

PREPROCESSING

Residual moisture content: 0.03 - 0.12%

Drying temperature dry air dryer: 80 °C

Drying time dry air dryer 2 - 6 h

PROCESSING

Melt temperature (Tmin - Tmax): 280 - 300 °C

Mold temperature: 80 - 120 °C