ForTii® MX3

PPA-GF50 Envalior

Product Texts

50% Glass Reinforced, PA4T, Heat Stabilized, for Automotive applications

ISO 1043 PPA-GF50

ForTii® MX3 is a high Tg PPA that outperforms in dimensional stability at elevated temperatures due to the high heat deflection temperature (HDT). MX3 has excellent fatigue performance and good chemical resistance.

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
[C] Molding shrinkage, parallel	**0.3 / ***	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**0.9 / ***	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**18000 / 18300**	MPa	ISO 527
[C] Stress at break	**260 / 240**	MPa	ISO 527
[C] Strain at break	**2.1 / 2**	%	ISO 527
[C] Charpy impact strength, +23°C	**90 / 80**	kJ/m²	ISO 179/1eU
[C] Charpy impact strength, -30°C	**75 / 65**	kJ/m²	ISO 179/1eU
[C] Charpy notched impact strength, +23°C	**12 / 10**	kJ/m²	ISO 179/1eA
[C] Charpy notched impact strength, -30°C	**11 / 9**	kJ/m²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Melting temperature, 10°C/min	**325 / ***	°C	ISO 11357-1/-3
[C] Glass transition temperature, 10°C/min	**125 / ***	°C	ISO 11357-1/-2
[C] Temp. of deflection under load, 1.80 MPa	**305 / ***	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**318 / ***	°C	ISO 75-1/-2
[C] Coeff. of linear therm. expansion, parallel	**15 / ***	E-6/K	ISO 11359-1/-2
[C] Coeff. of linear therm. expansion, normal	**50 / ***	E-6/K	ISO 11359-1/-2

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Relative permittivity, 100Hz	**5.1 / 5.8**	-	IEC 62631-2-1
[C] Relative permittivity, 1MHz	**4.8 / 5**	-	IEC 62631-2-1
[C] Dissipation factor, 100Hz	**54 / 280**	E-4	IEC 62631-2-1
[C] Dissipation factor, 1MHz	**160 / 270**	E-4	IEC 62631-2-1
[C] Volume resistivity	**>1E13 / >1E13**	Ohm*m	IEC 62631-3-1
[C] Surface resistivity	*** / >1E15**	Ohm	IEC 62631-3-2
[C] Electric strength	**35 / 34**	kV/mm	IEC 60243-1
[C] Comparative tracking index	**425 / -**	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Water absorption	**4 / ***	%	Sim. to ISO 62
[C] Humidity absorption	**1.5 / ***	%	Sim. to ISO 62
[C] Density	**1650 / -**	kg/m³	ISO 1183

[C]: CAMPUS

Characteristics

Processing
Injection Molding

Special Characteristics
Heat stabilized or stable to heat

Delivery form
Pellets

Applications
Automotive

Additives
Lubricants, Release agent

Regional Availability
North America, Europe, Asia Pacific

Other text information

Injection molding
Injection Molding Recommendations
Hot runner recommendations for molding high heat performance Engineering Materials
Steel recommendations for molds screws and barrels
Trouble shooting guideline for injection molding