


ForTii™ MX1 (NC1102C)

PPA-GF30

Envalior

Product Texts

30% Glass Reinforced, PA4T, Heat Stabilized, for Automotive applications

ISO 1043 PPA-GF30

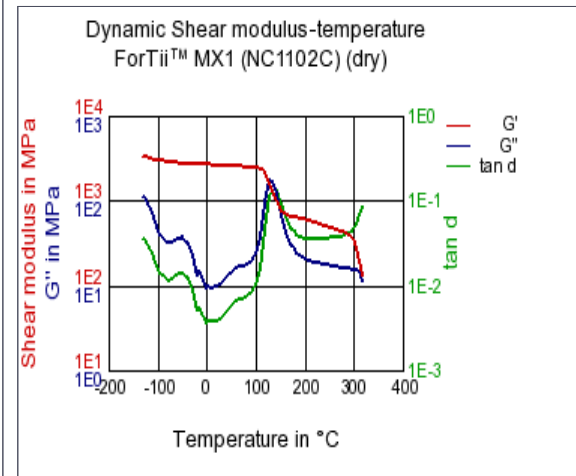
ForTii® MX1

is a high Tg PPA that outperforms in dimensional stability at elevated temperatures due to the high heat deflection temperature (HDT). MX1 has excellent fatigue performance and good chemical resistance.

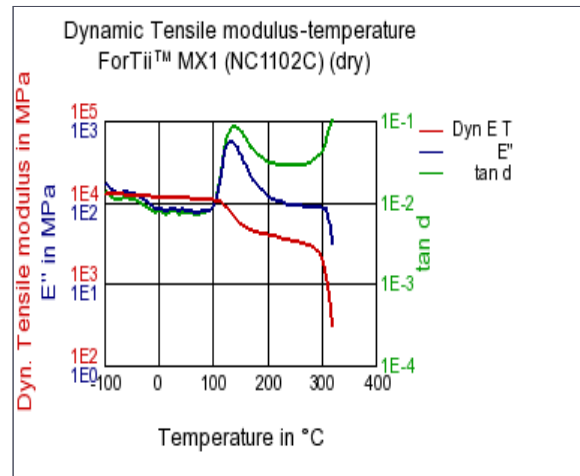
Rheological properties	dry / cond	Unit	Test Standard
ISO Data			
Molding shrinkage, parallel	0.4 / *	%	ISO 294-4, 2577
Molding shrinkage, normal	1.1 / *	%	ISO 294-4, 2577
Mechanical properties			
ISO Data			
Tensile Modulus	11300 / 11600	MPa	ISO 527
Stress at break	190 / 170	MPa	ISO 527
Strain at break	2.1 / 1.9	%	ISO 527
Charpy impact strength, +23°C	55 / 45	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	45 / 40	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, +23°C	9 / 8	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	9 / 8	kJ/m ²	ISO 179/1eA
Thermal properties			
ISO Data			
Melting temperature, 10°C/min	325 / *	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	125 / *	°C	ISO 11357-1/-2
Temp. of deflection under load, 1.80 MPa	303 / *	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	316 / *	°C	ISO 75-1/-2
Electrical properties			
ISO Data			
Relative permittivity, 100Hz	4.7 / 5.6	-	IEC 62631-2-1
Relative permittivity, 1MHz	4.4 / 4.6	-	IEC 62631-2-1
Dissipation factor, 100Hz	61 / 260	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	200 / 310	E-4	IEC 62631-2-1
Volume resistivity	>1E13 / >1E13	Ohm*m	IEC 62631-3-1
Surface resistivity	* / >1E15	Ohm	IEC 62631-3-2
Comparative tracking index	375 / -	-	IEC 60112
Other properties			
ISO Data			
Water absorption	5.4 / *	%	Sim. to ISO 62
Humidity absorption	2.1 / *	%	Sim. to ISO 62
Density	1450 / -	kg/m ³	ISO 1183

Diagrams

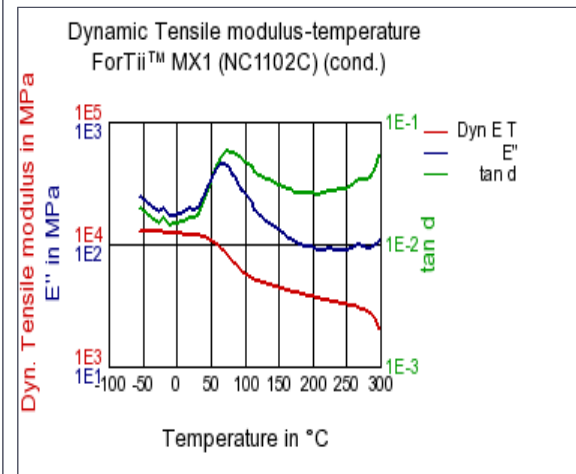
Dynamic Shear modulus-temperature



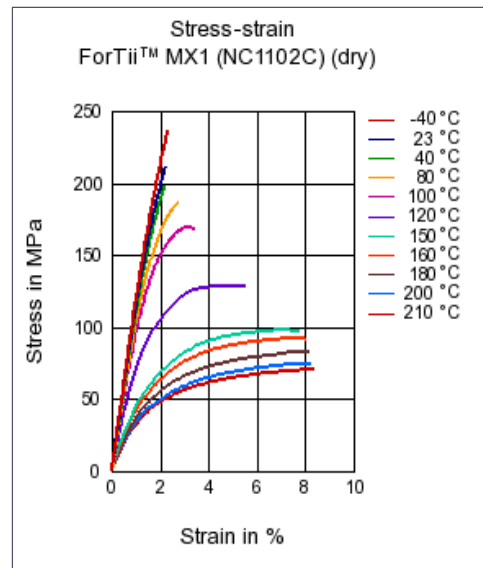
Dynamic Tensile modulus-temperature



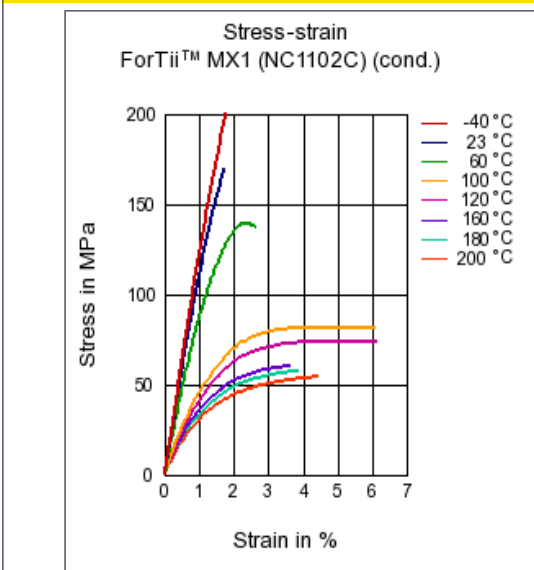
Dynamic Tensile modulus-temperature



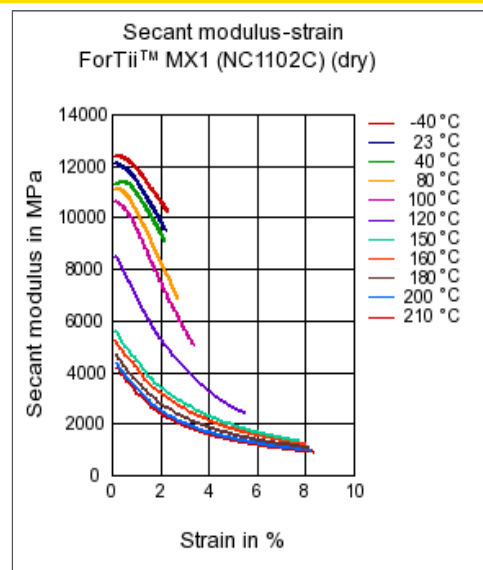
Stress-strain



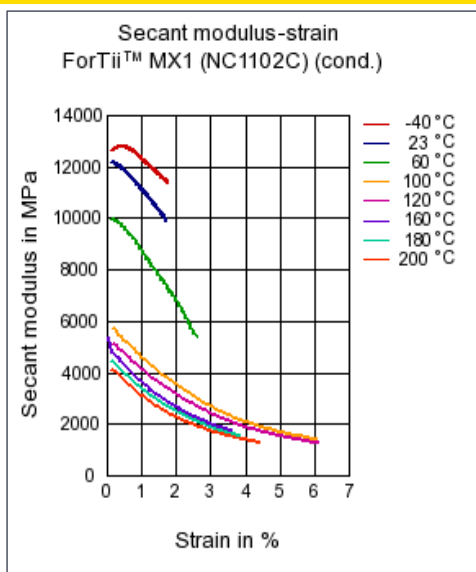
Stress-strain



Secant modulus-strain



Secant modulus-strain



Characteristics

Processing

Injection Molding

Special Characteristics

Heat stabilized or stable to heat

Delivery form

Granules

Applications

Automotive

Additives

Lubricants, Release agent

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](#)

Chemical Media Resistance

Alcohols

☺ Methanol (23 °C)

☺ Ethanol (23 °C)

Hydrocarbons

☺ Toluene (23 °C)

Ketones

☺ Acetone (23 °C)

Ethers

☺ Diethyl ether (23 °C)

Other

☺ Ethyl Acetate (23 °C)

☺ Water (23 °C)