

**TECHNICAL DATA SHEET**

# ForTii® JTX2

Envalior  
PPA-GF30

**Processing**

Injection molding

**Delivery Form**

Granules

## Product Text

**Product Information**

30% Glass Reinforced, PA4T, Electro-friendly

ISO 1043 PPA-GF30

ForTii® JTX2 has robust mechanical performance and has good reliability in thermal ageing and mechanical shocks. JTX2 has consistent performance in injection molding processing and a low risk of blistering due to its JEDEC MLS 1 rating for specified thicknesses. JTX2 is the best candidate for HB reflow headers/connectors in (automotive) electronics.

Processing/Physical Characteristics	Value	Unit	Standard
Molding shrinkage, parallel	0.4	%	ISO 294-4, 2577
Molding shrinkage, normal	1.2	%	ISO 294-4, 2577
Mechanical Properties	Value	Unit	Standard
Tensile modulus	11300	MPa	ISO 527
Stress at break	200	MPa	ISO 527
Strain at break	2.2	%	ISO 527
Poisson's ratio	0.35		ISO 527
Charpy impact strength, +23°C	60	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C	55	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, +23°C	10	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30°C	10	kJ/m <sup>2</sup>	ISO 179/1eA
Thermal Properties	Value	Unit	Standard
Melting temperature, 10°C/min	325	°C	ISO 11357-1/-3

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Thermal Properties	Value	Unit	Standard
Glass transition temperature, 10°C/min	125	°C	ISO 11357-1/-2
Temp. of deflection under load, 1.80 MPa	305	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	320	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	18	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	60	E-6/K	ISO 11359-1/-2
Burning behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	3	mm	
Yellow card available	yes		

Electrical Properties	Value	Unit	Standard
Relative permittivity, 100Hz	5		IEC 62631-2-1
Relative permittivity, 1MHz	4.5		IEC 62631-2-1
Dissipation factor, 100Hz	150	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	280	E-4	IEC 62631-2-1
Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
Surface resistivity	>1E15	Ohm	IEC 62631-3-2
Electric strength	43	kV/mm	IEC 60243-1
Comparative tracking index	600		IEC 60112

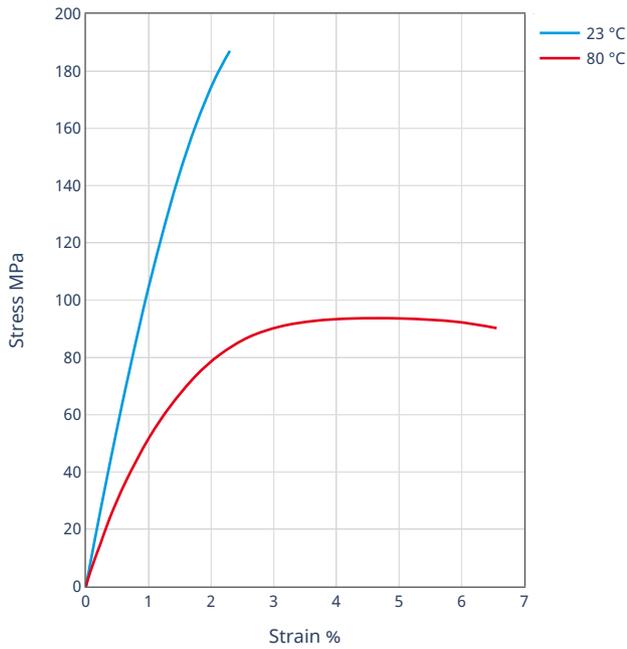
Other Properties	Value	Unit	Standard
Water absorption	5.1	%	Sim. to ISO 62
Humidity absorption	2	%	Sim. to ISO 62
Density	1430	kg/m <sup>3</sup>	ISO 1183

## Diagrams

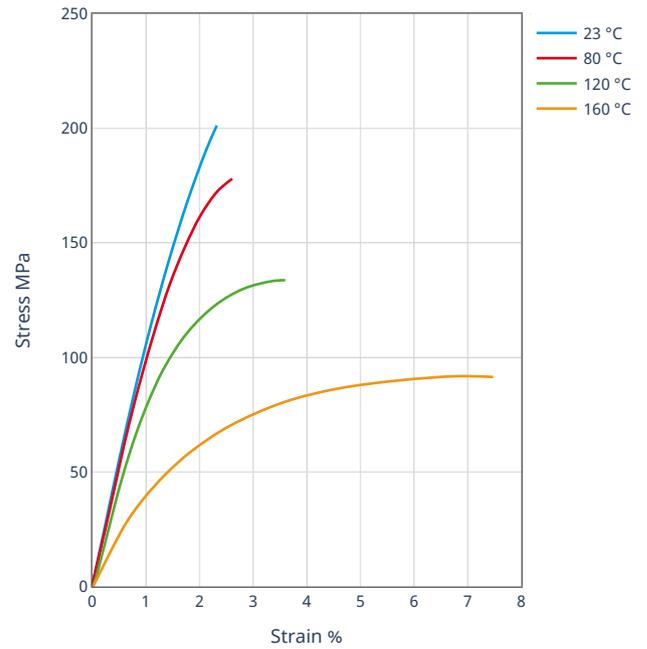
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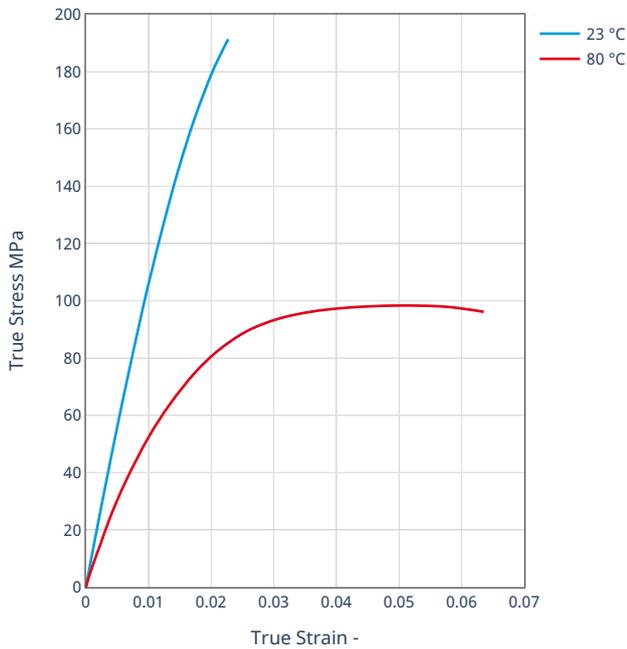
Stress-strain



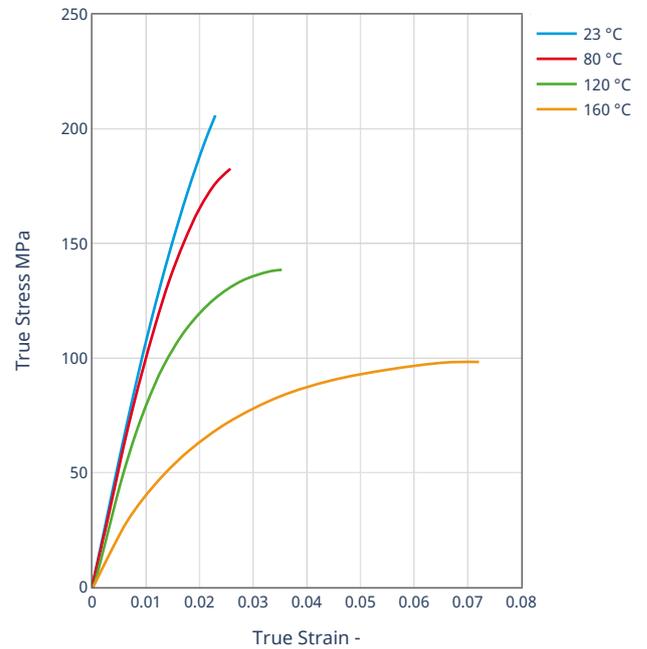
Stress-strain



True stress-true strain



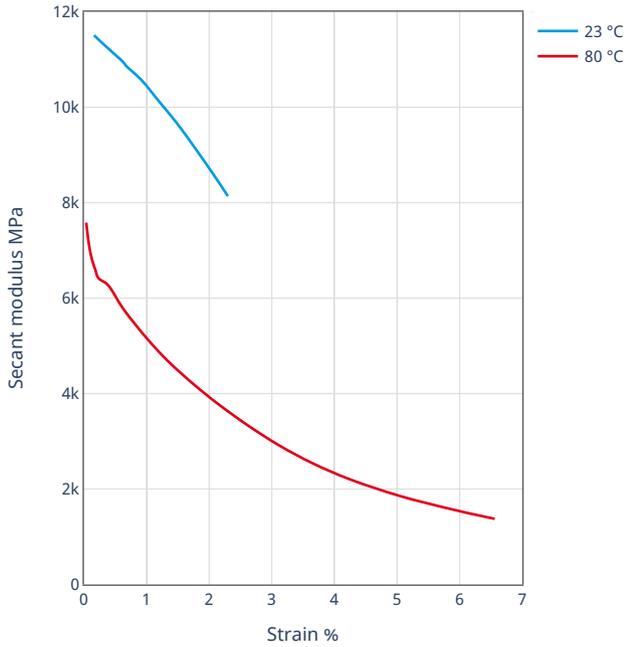
True stress-true strain



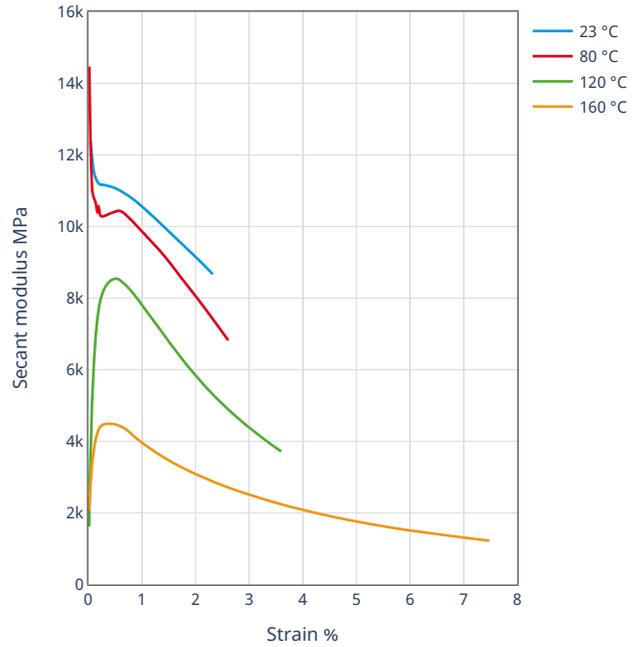
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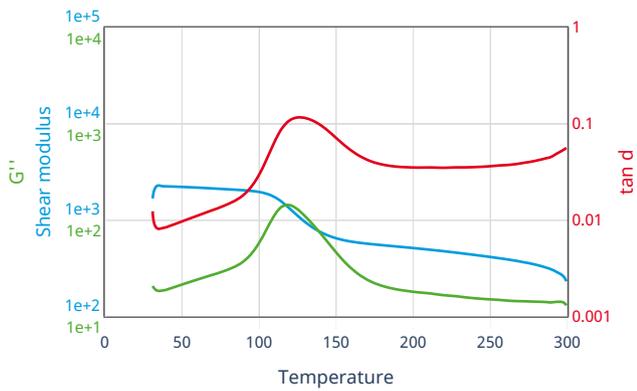
Secant modulus-strain



Secant modulus-strain



Dynamic shear modulus-temperature



## Processing 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