

ForTii® JTX2

PPA-GF30

30% Glass Reinforced, PA4T, Electro-friendly, for E&E applications

Print Date: 2019-10-08

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 (auto) E&E.

Properties	Typical Data	Unit	Test Method
Rheological properties	dry / cond		
Molding shrinkage (parallel)	0.4 / *	%	ISO 294-4
Molding shrinkage (normal)	1.2 / *	%	ISO 294-4
Mechanical properties	dry / cond		
Tensile modulus	11000 / 11000	MPa	ISO 527-1/-2
Tensile modulus (80°C)	10500 / -	MPa	ISO 527-1/-2
Tensile modulus (120°C)	7500 / -	MPa	ISO 527-1/-2
Tensile modulus (160°C)	4500	MPa	ISO 527-1/-2
Tensile modulus (200°C)	4000	MPa	ISO 527-1/-2
Stress at break	200 / 180	MPa	ISO 527-1/-2
Stress at break (80°C)	180 / -	MPa	ISO 527-1/-2
Stress at break (120°C)	135 / -	MPa	ISO 527-1/-2
Stress at break (160°C)	90	MPa	ISO 527-1/-2
Stress at break (200°C)	75	MPa	ISO 527-1/-2
Strain at break	2.1 / 2	%	ISO 527-1/-2
Strain at break (80°C)	4 / -	%	ISO 527-1/-2
Strain at break (120°C)	3.6 / -	%	ISO 527-1/-2
Strain at break (160°C)	7	%	ISO 527-1/-2
Strain at break (200°C)	8	%	ISO 527-1/-2

Property Data

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Properties	Typical Data	Unit	Test Method
Flexural modulus	10500 / -	MPa	ISO 178
Flexural strength	315 / -	MPa	ISO 178
Flexural modulus (160°C)	5000	MPa	ISO 178
Flexural modulus (200°C)	4000	MPa	ISO 178
Charpy impact strength (+23°C)	60 / 60	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	10 / 10	kJ/m ²	ISO 179/1eA

Thermal properties

dry / cond

Melting temperature (10°C/min)	325 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	305 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	0.33	E-4/°C	ASTM D696
Coeff. of linear therm. expansion (normal)	0.4	E-4/°C	ASTM D696
Burning Behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
UL recognition	Yes / *	-	-
Burning Behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.4 / *	mm	IEC 60695-11-10
UL recognition	Yes / *	-	-
Thermal Index 5000 hrs	167	°C	IEC 60216/ISO 527-1/-2

Electrical properties

dry / cond

Volume resistivity	>1E13 / >1E13	Ohm*m	IEC 60093
Electric strength	43 / 40	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	V	IEC 60112
Relative permittivity (100Hz)	5 / 5	-	IEC 60250
Relative permittivity (1 MHz)	4.5 / 4.5	-	IEC 60250
Relative permittivity (1GHz)	3.9 / 4	-	IEC 60250
Relative permittivity (10GHz)	3.8 / 3.9	-	IEC 60250

Other properties

dry / cond

Humidity absorption	2 / *	%	Sim. to ISO 62
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Properties	Typical Data	Unit	Test Method
Density	1430 / -	kg/m ³	ISO 1183