

ForTii® JTX2

PPA—GF30

30% Glass Reinforced, PA4T, Electro-friendly

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.

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	11300 / 11500	MPa	ISO 527-1/-2
Tensile modulus (80°C)	10500 / 6200	MPa	ISO 527-1/-2
Tensile modulus (120°C)	8000 / –	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 / 95	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	2.2 / 2	%	ISO 527-1/-2
Strain at break (80°C)	2.6 / 6	%	ISO 527-1/-2
Strain at break (120°C)	4.3 / –	%	ISO 527-1/-2
Strain at break (160°C)	6	%	ISO 527-1/-2
Strain at break (200°C)	6	%	ISO 527-1/-2

Property Data

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Flexural modulus	10500 / 11000	MPa	ISO 178
Flexural strength	300 / 270	MPa	ISO 178
Flexural modulus (120°C)	7500	MPa	ISO 178
Flexural modulus (160°C)	4500	MPa	ISO 178
Flexural modulus (200°C)	4000	MPa	ISO 178
Charpy impact strength (+23°C)	60 / 50	kJ/m ²	ISO 179/1eU
Charpy impact strength (−30°C)	55 / 45	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	10 / 9	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (−30°C)	10 / 9	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)	0.18 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.6 / *	E-4/°C	ISO 11359-1/-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 3.0 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	3 / *	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 62631-3-1
Electric strength	43 / 40	kV/mm	IEC 60243-1
Comparative tracking index	600 / —	V	IEC 60112
Relative permittivity (100Hz)	5 / 5	—	IEC 62631-2-1
Relative permittivity (1 MHz)	4.5 / 4.5	—	IEC 62631-2-1

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Relative permittivity (1GHz)	3.9 / 4	–	IEC 61189–2–721
Relative permittivity (10GHz)	3.8 / 3.9	–	IEC 61189–2–721
OTHER PROPERTIES		DRY / COND	
Humidity absorption	2 / *	%	Sim. to ISO 62
Density	1430 / –	kg/m³	ISO 1183