

ForTii[®] Ace JTX8

PPA-GF30

30% Glass Reinforced, PA4T, Electro-friendly, Improved resistance to blistering during reflow – soldering process, Improved color stability

Print Date: 2024-09-17

ForTii® Ace JTX8 is the only polyamide grade in the world that secures, in all product designs, the JEDEC MSL 1 rating at all thicknesses. Ace JTX8 has the highest Tg available in polyamides (160°C) to satisfy various industry requirements like chemical resistance and high temperature thermal ageing. Ace JTX8 has extremely robust processing performance and allows 100% regrinding with high mechanical properties retention.

RHEOLOGICAL PROPERTIES DRY / COND Molding shrinkage (parallel) 0.43 / ' % ISO 294-4 Molding shrinkage (normal) 1.2 / ' % ISO 294-4 MECHANICAL PROPERTIES DRY / COND Tensile modulus 11000 / 11000 MPa Tensile modulus (-40°C) 11700 / - MPa Tensile modulus (6.40°C) 10500 / - MPa Tensile modulus (80°C) 10300 / 9500 MPa Tensile modulus (100°C) 10200 / - MPa Tensile modulus (120°C) 9600 / - MPa Tensile modulus (120°C) 9600 / - MPa Tensile modulus (200°C) 4000 MPa ISO 527-1/-2 Tensile modulus (200°C) 240 / - MPa ISO 527-1/-2 Stress at break 210 / 190 MPa ISO 527-1/-2 Stress at break (40°C) 200 / - MPa ISO 527-1/-2 Stress at break (40°C)	PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Molding shrinkage (normal) 1.2 / * % ISO 294-4 MECHANICAL PROPERTIES DRY / COND Tensile modulus 11000 / 11000 MPa ISO 527-1/-2 Tensile modulus (-40°C) 11700 / - MPa ISO 527-1/-2 Tensile modulus (40°C) 10500 / - MPa ISO 527-1/-2 Tensile modulus (80°C) 10300 / 9500 MPa ISO 527-1/-2 Tensile modulus (100°C) 10200 / - MPa ISO 527-1/-2 Tensile modulus (100°C) 10200 / - MPa ISO 527-1/-2 Tensile modulus (100°C) 10200 / - MPa ISO 527-1/-2 Tensile modulus (100°C) 9500 / - MPa ISO 527-1/-2 Tensile modulus (100°C) 9600 / - MPa ISO 527-1/-2 Tensile modulus (20°C) 4000 MPa ISO 527-1/-2 Tensile modulus (20°C) 4000 MPa ISO 527-1/-2 Stress at break (-40°C) 240 / - MPa ISO 527-1/-2 Stress at break (40°C) 200 / - MPa ISO 527-1/-2 Stress at break (40°C)	RHEOLOGICAL PROPERTIES	DRY / COND		
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Tensile modulus 11000 / 11000 MPa ISO 527-1/-2 Tensile modulus (-40°C) 11700 / - MPa ISO 527-1/-2 Tensile modulus (40°C) 10500 / - MPa ISO 527-1/-2 Tensile modulus (80°C) 10300 / 9500 MPa ISO 527-1/-2 Tensile modulus (100°C) 10300 / 9500 MPa ISO 527-1/-2 Tensile modulus (100°C) 10200 / - MPa ISO 527-1/-2 Tensile modulus (120°C) 9500 / - MPa ISO 527-1/-2 Tensile modulus (160°C) 6000 MPa ISO 527-1/-2 Tensile modulus (200°C) 4000 MPa ISO 527-1/-2 Tensile modulus (200°C) 4000 MPa ISO 527-1/-2 Stress at break 210 / 190 MPa ISO 527-1/-2 Stress at break (-40°C) 240 / - MPa ISO 527-1/-2 Stress at break (40°C) 200 / - MPa ISO 527-1/-2 Stress at break (80°C) 180 / 120 MPa ISO 527-1/-2 Stress at break (100°C) 170 / - MPa ISO 527-1/-2 Stress at break (120°C) 150 / - MPa ISO 527-1/-2 <td>Molding shrinkage (normal)</td> <td>1.2 / *</td> <td>%</td> <td>ISO 294–4</td>	Molding shrinkage (normal)	1.2 / *	%	ISO 294–4
Tensile modulus 11000 / 11000 MPa ISO 527-1/-2 Tensile modulus (-40°C) 11700 / - MPa ISO 527-1/-2 Tensile modulus (40°C) 10500 / - MPa ISO 527-1/-2 Tensile modulus (80°C) 10300 / 9500 MPa ISO 527-1/-2 Tensile modulus (100°C) 10300 / 9500 MPa ISO 527-1/-2 Tensile modulus (100°C) 10200 / - MPa ISO 527-1/-2 Tensile modulus (120°C) 9500 / - MPa ISO 527-1/-2 Tensile modulus (160°C) 6000 MPa ISO 527-1/-2 Tensile modulus (200°C) 4000 MPa ISO 527-1/-2 Tensile modulus (200°C) 4000 MPa ISO 527-1/-2 Stress at break 210 / 190 MPa ISO 527-1/-2 Stress at break (-40°C) 240 / - MPa ISO 527-1/-2 Stress at break (40°C) 200 / - MPa ISO 527-1/-2 Stress at break (80°C) 180 / 120 MPa ISO 527-1/-2 Stress at break (100°C) 170 / - MPa ISO 527-1/-2 Stress at break (120°C) 150 / - MPa ISO 527-1/-2 <td></td> <td></td> <td></td> <td></td>				
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Tensile modulus (40°C) 10500 / - MPa ISO 527-1/-2 Tensile modulus (80°C) 10300 / 9500 MPa ISO 527-1/-2 Tensile modulus (100°C) 10200 / - MPa ISO 527-1/-2 Tensile modulus (120°C) 9500 / - MPa ISO 527-1/-2 Tensile modulus (120°C) 9500 / - MPa ISO 527-1/-2 Tensile modulus (160°C) 6000 MPa ISO 527-1/-2 Tensile modulus (200°C) 4000 MPa ISO 527-1/-2 Stress at break 210 / 190 MPa ISO 527-1/-2 Stress at break (-40°C) 240 / - MPa ISO 527-1/-2 Stress at break (40°C) 200 / - MPa ISO 527-1/-2 Stress at break (40°C) 200 / - MPa ISO 527-1/-2 Stress at break (40°C) 180 / 120 MPa ISO 527-1/-2 Stress at break (100°C) 170 / - MPa ISO 527-1/-2 Stress at break (100°C) 170 / - MPa ISO 527-1/-2 Stress at break (120°C) 150 / - MPa ISO 527-1/-2	Tensile modulus	11000 / 11000	MPa	ISO 527-1/-2
Tensile modulus (80°C) 10300 / 9500 MPa ISO 527-1/-2 Tensile modulus (100°C) 10200 / - MPa ISO 527-1/-2 Tensile modulus (120°C) 9500 / - MPa ISO 527-1/-2 Tensile modulus (160°C) 6000 MPa ISO 527-1/-2 Tensile modulus (160°C) 6000 MPa ISO 527-1/-2 Tensile modulus (200°C) 4000 MPa ISO 527-1/-2 Stress at break 210 / 190 MPa ISO 527-1/-2 Stress at break (-40°C) 240 / - MPa ISO 527-1/-2 Stress at break (40°C) 200 / - MPa ISO 527-1/-2 Stress at break (40°C) 200 / - MPa ISO 527-1/-2 Stress at break (40°C) 180 / 120 MPa ISO 527-1/-2 Stress at break (100°C) 170 / - MPa ISO 527-1/-2 Stress at break (120°C) 150 / - MPa ISO 527-1/-2 Stress at break (120°C) 150 / - MPa ISO 527-1/-2 Stress at break (160°C) 100 MPa ISO 527-1/-2	Tensile modulus (-40°C)	11700 / -	MPa	ISO 527-1/-2
Tensile modulus (100°C) 10200 / - MPa ISO 527-1/-2 Tensile modulus (120°C) 9500 / - MPa ISO 527-1/-2 Tensile modulus (160°C) 6000 MPa ISO 527-1/-2 Tensile modulus (200°C) 4000 MPa ISO 527-1/-2 Stress at break 210 / 190 MPa ISO 527-1/-2 Stress at break (-40°C) 240 / - MPa ISO 527-1/-2 Stress at break (40°C) 200 / - MPa ISO 527-1/-2 Stress at break (40°C) 200 / - MPa ISO 527-1/-2 Stress at break (40°C) 180 / 120 MPa ISO 527-1/-2 Stress at break (40°C) 180 / 120 MPa ISO 527-1/-2 Stress at break (100°C) 170 / - MPa ISO 527-1/-2 Stress at break (120°C) 150 / - MPa ISO 527-1/-2 Stress at break (120°C) 150 / - MPa ISO 527-1/-2 Stress at break (160°C) 100 MPa ISO 527-1/-2	Tensile modulus (40°C)	10500 / -	MPa	ISO 527-1/-2
Tensile modulus (120°C) 9500 / - MPa ISO 527-1/-2 Tensile modulus (160°C) 6000 MPa ISO 527-1/-2 Tensile modulus (200°C) 4000 MPa ISO 527-1/-2 Stress at break 210 / 190 MPa ISO 527-1/-2 Stress at break (-40°C) 240 / - MPa ISO 527-1/-2 Stress at break (40°C) 200 / - MPa ISO 527-1/-2 Stress at break (80°C) 180 / 120 MPa ISO 527-1/-2 Stress at break (100°C) 170 / - MPa ISO 527-1/-2 Stress at break (100°C) 170 / - MPa ISO 527-1/-2 Stress at break (100°C) 170 / - MPa ISO 527-1/-2 Stress at break (100°C) 170 / - MPa ISO 527-1/-2 Stress at break (120°C) 150 / - MPa ISO 527-1/-2 Stress at break (120°C) 100 MPa ISO 527-1/-2	Tensile modulus (80°C)	10300 / 9500	MPa	ISO 527-1/-2
Tensile modulus (160°C) 6000 MPa ISO 527-1/-2 Tensile modulus (200°C) 4000 MPa ISO 527-1/-2 Stress at break 210 / 190 MPa ISO 527-1/-2 Stress at break (-40°C) 240 / - MPa ISO 527-1/-2 Stress at break (40°C) 200 / - MPa ISO 527-1/-2 Stress at break (40°C) 200 / - MPa ISO 527-1/-2 Stress at break (80°C) 180 / 120 MPa ISO 527-1/-2 Stress at break (100°C) 170 / - MPa ISO 527-1/-2 Stress at break (100°C) 170 / - MPa ISO 527-1/-2 Stress at break (100°C) 170 / - MPa ISO 527-1/-2 Stress at break (160°C) 100 MPa ISO 527-1/-2	Tensile modulus (100°C)	10200 / -	MPa	ISO 527-1/-2
Tensile modulus (200°C) 4000 MPa ISO 527-1/-2 Stress at break 210 / 190 MPa ISO 527-1/-2 Stress at break (-40°C) 240 / - MPa ISO 527-1/-2 Stress at break (40°C) 200 / - MPa ISO 527-1/-2 Stress at break (40°C) 200 / - MPa ISO 527-1/-2 Stress at break (80°C) 180 / 120 MPa ISO 527-1/-2 Stress at break (100°C) 170 / - MPa ISO 527-1/-2 Stress at break (120°C) 150 / - MPa ISO 527-1/-2 Stress at break (120°C) 150 / - MPa ISO 527-1/-2 Stress at break (160°C) 100 MPa ISO 527-1/-2	Tensile modulus (120°C)	9500 / -	MPa	ISO 527-1/-2
Stress at break 210 / 190 MPa ISO 527-1/-2 Stress at break (-40°C) 240 / - MPa ISO 527-1/-2 Stress at break (40°C) 200 / - MPa ISO 527-1/-2 Stress at break (80°C) 180 / 120 MPa ISO 527-1/-2 Stress at break (100°C) 170 / - MPa ISO 527-1/-2 Stress at break (120°C) 170 / - MPa ISO 527-1/-2 Stress at break (120°C) 150 / - MPa ISO 527-1/-2 Stress at break (160°C) 100 MPa ISO 527-1/-2	Tensile modulus (160°C)	6000	MPa	ISO 527-1/-2
Stress at break (-40°C) 240 / - MPa ISO 527-1/-2 Stress at break (40°C) 200 / - MPa ISO 527-1/-2 Stress at break (80°C) 180 / 120 MPa ISO 527-1/-2 Stress at break (100°C) 170 / - MPa ISO 527-1/-2 Stress at break (120°C) 150 / - MPa ISO 527-1/-2 Stress at break (120°C) 150 / - MPa ISO 527-1/-2 Stress at break (160°C) 100 MPa ISO 527-1/-2	Tensile modulus (200°C)	4000	MPa	ISO 527-1/-2
Stress at break (40°C) 200 / - MPa ISO 527-1/-2 Stress at break (80°C) 180 / 120 MPa ISO 527-1/-2 Stress at break (100°C) 170 / - MPa ISO 527-1/-2 Stress at break (120°C) 170 / - MPa ISO 527-1/-2 Stress at break (120°C) 150 / - MPa ISO 527-1/-2 Stress at break (160°C) 100 MPa ISO 527-1/-2	Stress at break	210 / 190	MPa	ISO 527-1/-2
Stress at break (80°C) 180 / 120 MPa ISO 527-1/-2 Stress at break (100°C) 170 / - MPa ISO 527-1/-2 Stress at break (120°C) 150 / - MPa ISO 527-1/-2 Stress at break (120°C) 150 / - MPa ISO 527-1/-2 Stress at break (160°C) 100 MPa ISO 527-1/-2	Stress at break (-40°C)	240 / -	MPa	ISO 527-1/-2
Stress at break (100°C) 170 / - MPa ISO 527-1/-2 Stress at break (120°C) 150 / - MPa ISO 527-1/-2 Stress at break (160°C) 100 MPa ISO 527-1/-2	Stress at break (40°C)	200 / -	MPa	ISO 527-1/-2
Stress at break (120°C) 150 / - MPa ISO 527-1/-2 Stress at break (160°C) 100 MPa ISO 527-1/-2	Stress at break (80°C)	180 / 120	MPa	ISO 527-1/-2
Stress at break (160°C) 100 MPa ISO 527-1/-2	Stress at break (100°C)	170 / -	MPa	ISO 527-1/-2
	Stress at break (120°C)	150 / -	MPa	ISO 527-1/-2
Stress at break (200°C) 75 MPa ISO 527-1/-2	Stress at break (160°C)	100	MPa	ISO 527-1/-2
	Stress at break (200°C)	75	MPa	ISO 527-1/-2

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Property Data ForTii[®] Ace JTX8

Print Date: 2024-09-17

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Strain at break	2.7 / 2.5	%	ISO 527-1/-2
Strain at break (-40°C)	2.8 / -	%	ISO 527-1/-2
Strain at break (40°C)	2.6 / -	%	ISO 527-1/-2
Strain at break (80°C)	2.8 / 3	%	ISO 527-1/-2
Strain at break (100°C)	2.7 / -	%	ISO 527-1/-2
Strain at break (120°C)	3/-	%	ISO 527-1/-2
Strain at break (160°C)	5	%	ISO 527-1/-2
Strain at break (200°C)	6	%	ISO 527-1/-2
Flexural modulus	10500 / 10500	MPa	ISO 178
Flexural strength	300 / 275	MPa	ISO 178
Flexural modulus (120°C)	9500	MPa	ISO 178
Flexural modulus (160°C)	5700	MPa	ISO 178
Flexural modulus (200°C)	3900	MPa	ISO 178
Charpy impact strength (+23°C)	70 / 60	kJ/m²	ISO 179/1eU
Charpy impact strength (-30°C)	65 / 55	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	10 / 8	kJ/m²	ISO 179/1eA
Charpy notched impact strength (-30°C)	10 / 8	kJ∕m²	ISO 179/1eA
THERMAL PROPERTIES	DRY / COND		
Melting temperature (10°C/min)	340 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	320 / *	°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
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	174	O°	IEC 60216/ISO 527-1/-2

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
ELECTRICAL PROPERTIES	DRY / COND		
Volume resistivity	>1E13 / >1E13	Ohm*m	IEC 62631-3-1
Electric strength	45 / 40	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	V	IEC 60112
Relative permittivity (1GHz)	3.92 / 3.88	_	IEC 61189-2-721
Relative permittivity (10GHz)	3.83 / -	_	IEC 61189-2-721
OTHER PROPERTIES	DRY / COND		
Humidity absorption	2 / *	%	Sim. to ISO 62
Density	1460 / -	kg∕m³	ISO 1183

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