

# ForTii<sup>®</sup> JTX2

## PPA–GF30

30% Glass Reinforced, PA4T, Electro–friendly

Print Date: 2024–04–23

ForTii<sup>®</sup> 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
<b>RHEOLOGICAL PROPERTIES</b>			
	<b>DRY / COND</b>		
Molding shrinkage (parallel)	0.4 / *	%	ISO 294–4
Molding shrinkage (normal)	1.2 / *	%	ISO 294–4
<b>MECHANICAL PROPERTIES</b>			
	<b>DRY / COND</b>		
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

All the trademarks mentioned here are trademarks of Envalior.

Seller represents and warrants exclusively that on the date of delivery by Seller the product shall be in conformity with the specifications agreed upon. Seller makes no other representations or warranties, whether express or implied.

Seller is not responsible or liable for the design of the products of the Customer and it is the responsibility of the Customer to determine that the Seller's product is safe, complies with application laws and regulations, and is technically or otherwise fit for its intended use. Seller does not endorse or claim suitability of its products for a specific application and disclaims each and every representation or warranty, whether express or implied, in that respect.

Typical values are indicative only and are not to be construed as being binding specifications. Colorants in the product or other additives may cause significant variations in typical values.

Copyright © Envalior 2024. All rights reserved. No part of the information may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of Envalior.

## Property Data

# ForTii<sup>®</sup> JTX2

Print Date: 2024-04-23

<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
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 <sup>2</sup>	ISO 179/1eU
Charpy impact strength (-30°C)	55 / 45	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength (+23°C)	10 / 9	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength (-30°C)	10 / 9	kJ/m <sup>2</sup>	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

All the trademarks mentioned here are trademarks of Envalior.

Seller represents and warrants exclusively that on the date of delivery by Seller the product shall be in conformity with the specifications agreed upon. Seller makes no other representations or warranties, whether express or implied.

Seller is not responsible or liable for the design of the products of the Customer and it is the responsibility of the Customer to determine that the Seller's product is safe, complies with application laws and regulations, and is technically or otherwise fit for its intended use. Seller does not endorse or claim suitability of its products for a specific application and disclaims each and every representation or warranty, whether express or implied, in that respect.

Typical values are indicative only and are not to be construed as being binding specifications. Colorants in the product or other additives may cause significant variations in typical values.

Copyright © Envalior 2024. All rights reserved. No part of the information may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of Envalior.

## Property Data

# ForTii<sup>®</sup> JTX2

Print Date: 2024-04-23

<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
Relative permittivity (1GHz)	3.9 / 4	–	IEC 61189-2-721
Relative permittivity (10GHz)	3.8 / 3.9	–	IEC 61189-2-721
<b><i>OTHER PROPERTIES</i></b>	<b><i>DRY / COND</i></b>		
Humidity absorption	2 / *	%	Sim. to ISO 62
Density	1430 / –	kg/m <sup>3</sup>	ISO 1183

All the trademarks mentioned here are trademarks of Envalior.

Seller represents and warrants exclusively that on the date of delivery by Seller the product shall be in conformity with the specifications agreed upon. Seller makes no other representations or warranties, whether express or implied.

Seller is not responsible or liable for the design of the products of the Customer and it is the responsibility of the Customer to determine that the Seller's product is safe, complies with application laws and regulations, and is technically or otherwise fit for its intended use. Seller does not endorse or claim suitability of its products for a specific application and disclaims each and every representation or warranty, whether express or implied, in that respect.

Typical values are indicative only and are not to be construed as being binding specifications. Colorants in the product or other additives may cause significant variations in typical values.

Copyright © Envalior 2024. All rights reserved. No part of the information may be reproduced, distributed, or transmitted in any form or by any means, including photocopying, recording, or other electronic or mechanical methods, without the prior written permission of Envalior.