

# ForTii<sup>®</sup> WX11-FC

## PPA-GF30

30% Glass Reinforced, PA4T, Food Contact Quality, Drinking Water Grade

Print Date: 2024-09-17

ForTii<sup>®</sup> WX11-FC has excellent hydrolysis resistance, processability and surface quality and is ideal for complex and thin walled food and water contact applications. For detailed statements and information regarding food contact and water contact approvals please contact your Envalior representative.

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 (-40°C)	11500 / -	MPa	ISO 527-1/-2
Tensile modulus (40°C)	10800 / -	MPa	ISO 527-1/-2
Tensile modulus (80°C)	10500 / 6200	MPa	ISO 527-1/-2
Tensile modulus (100°C)	10000 / -	MPa	ISO 527-1/-2
Tensile modulus (120°C)	8000 / 4600	MPa	ISO 527-1/-2
Tensile modulus (150°C)	5000	MPa	ISO 527-1/-2
Tensile modulus (160°C)	4500	MPa	ISO 527-1/-2
Tensile modulus (180°C)	4300	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 (-40°C)	230 / -	MPa	ISO 527-1/-2
Stress at break (40°C)	200 / -	MPa	ISO 527-1/-2
Stress at break (80°C)	180 / 95	MPa	ISO 527-1/-2
Stress at break (100°C)	160 / -	MPa	ISO 527-1/-2
Stress at break (120°C)	130 / 70	MPa	ISO 527-1/-2

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## Property Data

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<i>PROPERTIES</i>	<i>TYPICAL DATA</i>	<i>UNIT</i>	<i>TEST METHOD</i>
Stress at break (150°C)	95	MPa	ISO 527-1/-2
Stress at break (160°C)	90	MPa	ISO 527-1/-2
Stress at break (180°C)	80	MPa	ISO 527-1/-2
Stress at break (200°C)	70	MPa	ISO 527-1/-2
Strain at break	2.2 / 2	%	ISO 527-1/-2
Strain at break (-40°C)	2.3 / -	%	ISO 527-1/-2
Strain at break (40°C)	2.3 / -	%	ISO 527-1/-2
Strain at break (80°C)	2.6 / 6	%	ISO 527-1/-2
Strain at break (100°C)	3.2 / -	%	ISO 527-1/-2
Strain at break (120°C)	4.3 / 5	%	ISO 527-1/-2
Strain at break (150°C)	6	%	ISO 527-1/-2
Strain at break (160°C)	6	%	ISO 527-1/-2
Strain at break (180°C)	6	%	ISO 527-1/-2
Strain at break (200°C)	6	%	ISO 527-1/-2
Flexural modulus	10500 / 11000	MPa	ISO 178
Flexural strength	300 / 260	MPa	ISO 178
Flexural modulus (120°C)	7600	MPa	ISO 178
Flexural modulus (160°C)	4500	MPa	ISO 178
Flexural modulus (180°C)	4200	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
<b><i>THERMAL PROPERTIES</i></b>		<b><i>DRY / COND</i></b>	
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

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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 / *	–	–

<i>ELECTRICAL PROPERTIES</i>	<i>DRY / COND</i>		
Volume resistivity	>1E13 / >1E13	Ohm*m	IEC 62631–3–1
Electric strength	35 / 35	kV/mm	IEC 60243–1
Comparative tracking index	600 / –	V	IEC 60112

<i>OTHER PROPERTIES</i>	<i>DRY / COND</i>		
Humidity absorption	2 / *	%	Sim. to ISO 62
Density	1430 / –	kg/m <sup>3</sup>	ISO 1183

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