

ForTii[®] C11–F

PPA–GF30 FR(40)

30% Glass Fiber Reinforced, PA4T, Electro–friendly, Halogen free and free of red phosphorous

Print Date: 2025–04–10

ForTii[®] C11–F is developed for low corrosion and has good balance in flow, toughness and stiffness, enabling thin walls or complicated geometries for E8E applications. C11–F has an all color V0 rating down 0.2mm and high RTI electrical rating of 140°C at 0.75 mm and a CTI of 800V to secure thermal ageing and electrical performance.

PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
RHEOLOGICAL PROPERTIES			
	DRY / COND		
Molding shrinkage (parallel)	0.35 / *	%	ISO 294–4
Molding shrinkage (normal)	1.2 / *	%	ISO 294–4
MECHANICAL PROPERTIES			
	DRY / COND		
Tensile modulus	12000 / 12000	MPa	ISO 527–1/–2
Tensile modulus (–40°C)	12200 / –	MPa	ISO 527–1/–2
Tensile modulus (80°C)	11500 / –	MPa	ISO 527–1/–2
Tensile modulus (120°C)	8500 / –	MPa	ISO 527–1/–2
Tensile modulus (160°C)	5700	MPa	ISO 527–1/–2
Stress at break	140 / 140	MPa	ISO 527–1/–2
Stress at break (80°C)	120 / –	MPa	ISO 527–1/–2
Stress at break (100°C)	100 / –	MPa	ISO 527–1/–2
Stress at break (160°C)	70	MPa	ISO 527–1/–2
Strain at break	1.8 / 1.8	%	ISO 527–1/–2
Strain at break (–40°C)	2.3 / –	%	ISO 527–1/–2
Strain at break (80°C)	1.55 / –	%	ISO 527–1/–2
Strain at break (120°C)	2 / –	%	ISO 527–1/–2
Strain at break (160°C)	2.9	%	ISO 527–1/–2
Flexural modulus	11300 / 11300	MPa	ISO 178
Flexural strength	245 / 230	MPa	ISO 178

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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.
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Property Data

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PROPERTIES	TYPICAL DATA	UNIT	TEST METHOD
Charpy impact strength (+23°C)	46 / 41	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	7 / 6	kJ/m²	ISO 179/1eA

THERMAL PROPERTIES	DRY / COND		
Melting temperature (10°C/min)	333 / *	°C	ISO 11357–1/–3
Temp. of deflection under load (1.80 MPa)	310 / *	°C	ISO 75–1/–2
Coeff. of linear therm. expansion (parallel)	0.2 / *	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)	0.3	E–4/°C	ASTM D696
Coeff. of linear therm. expansion (normal)	0.35	E–4/°C	ASTM D696
Burning Behav. at 1.5 mm nom. thickn.	V–0 / *	class	IEC 60695–11–10
UL recognition	Yes / *	–	–
Burning Behav. at 3.0 mm nom. thickn.	V–0 / *	class	IEC 60695–11–10
Thickness tested	V–0 / *	mm	IEC 60695–11–10
UL recognition	Yes / *	–	–
Relative Temperature Index – electrical	140	°C	UL746B
RTI electrical (Thickness (1) tested)	0.75	mm	UL746B

ELECTRICAL PROPERTIES	DRY / COND		
Electric strength	36 / 36	kV/mm	IEC 60243–1
Comparative tracking index	600 / 600	V	IEC 60112
Comparative Tracking Index (above 600V)	800	V	Sim. to IEC 60112
Relative permittivity (1GHz)	3.85 / 3.92	–	IEC 61189–2–721

OTHER PROPERTIES	DRY / COND		
Humidity absorption	1.7 / *	%	Sim. to ISO 62
Density	1470 / –	kg/m³	ISO 1183

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