

Product Texts

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

ISO 1043 PPA-GF30 FR(40)

ForTii® C11-F is developed for low corrosion and has good balance in flow, toughness and stiffness, enabling thin walls or complicated geometries for E&E 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.

Processing/Physical Characteristics	dry / cond	Unit	Test Standard
ISO Data			
^[C] Molding shrinkage, parallel	0.3 / *	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	1.2 / *	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	12300 / 12600	MPa	ISO 527
^[C] Stress at break	140 / 135	MPa	ISO 527
^[C] Strain at break	1.8 / 2	%	ISO 527
^[C] Charpy impact strength, +23°C	46 / 41	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	7 / 6	kJ/m ²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	333 / *	°C	ISO 11357-1/-3
^[C] Glass transition temperature, 10°C/min	125 / *	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	305 / *	°C	ISO 75-1/-2
^[C] Coeff. of linear therm. expansion, parallel	20 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	65 / *	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn. Yellow Card available	V-0 / * yes / *	class -	IEC 60695-11-10 -
^[C] Burning Behav. at thickness h Yellow Card available	V-0 / * yes / *	class -	IEC 60695-11-10 -

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Electric strength	36 / 36	kV/mm	IEC 60243-1
^[C] Comparative tracking index	600 / 600	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
^[C] Water absorption	4.7 / *	%	Sim. to ISO 62
^[C] Humidity absorption	1.7 / *	%	Sim. to ISO 62
^[C] Density	1470 / -	kg/m ³	ISO 1183

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	100 - 120	°C	-
Pre-drying - Time	2 - 24	h	-
Processing humidity	≤0.5	%	-
Melt temperature	345 - 355	°C	-
Mold temperature	80 - 150	°C	-

Zone 1	325 - 340	°C	-
Zone 2	330 - 345	°C	-
Zone 3	335 - 345	°C	-
Nozzle temperature	335 - 345	°C	-

Characteristics

Processing

Injection Molding

Delivery form

Pellets

Special Characteristics

Flame retardant, Halogen-free, Phosphorus-free

Applications

Electrical and Electronical

Regional Availability

North America, Europe, Asia Pacific

Other text information

Injection molding

[Injection Molding Recommendations](#)

[Hot runner recommendations for molding high heat performance Engineering Materials](#)

[Steel recommendations for molds screws and barrels](#)

[Trouble shooting guideline for injection molding](#)