ForTii®

ForTii® F11C

PPA-GF30 FR(40)

30% Glass Reinforced, PA4T, Flame Retardant, Halogen free and free of red phosphorous, Improved color stability

Print Date: 2019-09-19

Properties	Typical Data	Unit	Test Method
Rheological properties	dry / cond		
Molding shrinkage (parallel)	0.3 / *	%	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 (120°C)	7500 / -	MPa	ISO 527-1/-2
Tensile modulus (160°C)	5000	MPa	ISO 527-1/-2
Stress at break	155 / 155	MPa	ISO 527-1/-2
Stress at break (120°C)	100 / -	MPa	ISO 527-1/-2
Stress at break (160°C)	70	MPa	ISO 527-1/-2
Strain at break	2 / 2	%	ISO 527-1/-2
Strain at break (120°C)	2.8 / -	%	ISO 527-1/-2
Strain at break (160°C)	3.8	%	ISO 527-1/-2
Flexural modulus	11500 / 11500	MPa	ISO 178
Flexural strength	245 / 230	MPa	ISO 178
Charpy impact strength (+23°C)	50 / 50	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	10 / 10	kJ/m²	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)	0.2 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.65 / *	E-4/°C	ISO 11359-1/-2

Property Data

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Properties	Typical Data	Unit	Test Method
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 thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.2 / *	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	33 / 33	kV/mm	IEC 60243-1
Comparative tracking index	600 / -	V	IEC 60112
Relative permittivity (100Hz)	4.2 / 4.2	-	IEC 60250
Relative permittivity (1 MHz)	3.9 / 3.9	-	IEC 60250
Relative permittivity (1GHz)	3.9 / 3.9	-	IEC 60250
Relative permittivity (10GHz)	3.9 / 3.8	-	IEC 60250
Other properties	**dry / cond**		
Humidity absorption	1.5 / *	%	Sim. to ISO 62
Density	1460 / -	kg/m³	ISO 1183