

Product Texts

30% Glass Reinforced, Flame Retardant, Heat Stabilized, Improved resistance to blistering during reflow - soldering process

ISO 1043 PA46-GF30 FR(17)

Stanyl® TS250F6D is an electro-friendly & flame-retarded high heat polyamide that offers excellent creep resistance, strength, stiffness and fatigue resistance especially at high temperatures in combination with cycle-time advantages and excellent flow.

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
^[C] Density of melt	1470	kg/m ³	-
^[C] Thermal conductivity of melt	0.271	W/(m K)	-
^[C] Spec. heat capacity of melt	1770	J/(kg K)	-
^[C] Eff. thermal diffusivity	1.05E-7	m ² /s	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	12400 / 8500	MPa	ISO 527
^[C] Stress at break	180 / 115	MPa	ISO 527
^[C] Strain at break	2.2 / 3	%	ISO 527
^[C] Charpy impact strength, +23°C	60 / 60	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	50 / 50	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	12 / 12	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	11 / 11	kJ/m ²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	295 / *	°C	ISO 11357-1/-3
^[C] Glass transition temperature, 10°C/min	75 / *	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	290 / *	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	290 / *	°C	ISO 75-1/-2
^[C] Vicat softening temperature, B	290 / *	°C	ISO 306
^[C] Coeff. of linear therm. expansion, parallel	25 / *	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	55 / *	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	-
Yellow Card available	yes / *	-	-
^[C] Burning Behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	3.0 / *	mm	-
Yellow Card available	yes / *	-	-
^[C] Oxygen index	37 / *	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 100Hz	4.3 / 10	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	4 / 4.5	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	60 / 3300	E-4	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	160 / 700	E-4	IEC 62631-2-1
^[C] Volume resistivity	>1E13 / 1E8	Ohm*m	IEC 62631-3-1
^[C] Surface resistivity	* / 1E14	Ohm	IEC 62631-3-2
^[C] Electric strength	30 / 20	kV/mm	IEC 60243-1
^[C] Comparative tracking index	250 / -	-	IEC 60112

[C]: CAMPUS

Stanyl® TS250F6D

PA46-GF30 FR(17)

Envalior

Other properties	dry / cond	Unit	Test Standard
^[C] Water absorption	5.5 / *	%	Sim. to ISO 62
^[C] Humidity absorption	1.6 / *	%	Sim. to ISO 62
^[C] Density	1680 / -	kg/m ³	ISO 1183

[C]: CAMPUS

Material specific properties	dry / cond	Unit	Test Standard
ISO Data			
^[C] Viscosity number	160 / *	cm ³ /g	ISO 307, 1157, 1628

[C]: CAMPUS

Characteristics**Processing**

Injection Molding

Special Characteristics

Flame retardant, Heat stabilized or stable to heat

Additives

Lubricants, Release agent

Regional Availability

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](#)[Supporting document for Stanyl quality processing](#)[Trouble shooting guideline for injection molding](#)