

**Product Texts**

15% Glass Reinforced, Heat Stabilized, Flame Retardant

ISO 1043 PA46-GF15 FR(17)

Stanyl® TE250F3 is an electro-friendly & flame-retarded high heat polyamide that offers excellent creep resistance, strength, ductility and fatigue resistance especially at high temperatures in combination with cycle-time advantages and excellent flow.

<b>Processing/Physical Characteristics</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
<sup>[C]</sup> Density of melt	<b>1370</b>	kg/m <sup>3</sup>	-
<sup>[C]</sup> Thermal conductivity of melt	<b>0.27</b>	W/(m K)	-
<sup>[C]</sup> Spec. heat capacity of melt	<b>1790</b>	J/(kg K)	-
<sup>[C]</sup> Eff. thermal diffusivity	<b>1.14E-7</b>	m <sup>2</sup> /s	-

[C]: CAMPUS

<b>Mechanical properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
<sup>[C]</sup> Tensile Modulus	<b>8000 / -</b>	MPa	ISO 527
<sup>[C]</sup> Stress at break	<b>135 / -</b>	MPa	ISO 527
<sup>[C]</sup> Strain at break	<b>2.9 / -</b>	%	ISO 527
<sup>[C]</sup> Charpy impact strength, +23°C	<b>40 / 50</b>	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy impact strength, -30°C	<b>40 / 40</b>	kJ/m <sup>2</sup>	ISO 179/1eU
<sup>[C]</sup> Charpy notched impact strength, +23°C	<b>7 / 10</b>	kJ/m <sup>2</sup>	ISO 179/1eA
<sup>[C]</sup> Charpy notched impact strength, -30°C	<b>6 / 6</b>	kJ/m <sup>2</sup>	ISO 179/1eA

[C]: CAMPUS

<b>Thermal properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
<sup>[C]</sup> Melting temperature, 10°C/min	<b>295 / *</b>	°C	ISO 11357-1/-3
<sup>[C]</sup> Glass transition temperature, 10°C/min	<b>75 / *</b>	°C	ISO 11357-1/-2
<sup>[C]</sup> Temp. of deflection under load, 1.80 MPa	<b>290 / *</b>	°C	ISO 75-1/-2
<sup>[C]</sup> Temp. of deflection under load, 0.45 MPa	<b>290 / *</b>	°C	ISO 75-1/-2
<sup>[C]</sup> Vicat softening temperature, B	<b>290 / *</b>	°C	ISO 306
<sup>[C]</sup> Coeff. of linear therm. expansion, parallel	<b>40 / *</b>	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Coeff. of linear therm. expansion, normal	<b>60 / *</b>	E-6/K	ISO 11359-1/-2
<sup>[C]</sup> Burning Behav. at 1.5 mm nom. thickn.	<b>V-0 / *</b>	class	IEC 60695-11-10
Thickness tested	<b>1.5 / *</b>	mm	-
Yellow Card available	<b>yes / *</b>	-	-
<sup>[C]</sup> Burning Behav. at thickness h	<b>V-0 / *</b>	class	IEC 60695-11-10
Thickness tested	<b>3.0 / *</b>	mm	-
Yellow Card available	<b>yes / *</b>	-	-

[C]: CAMPUS

<b>Electrical properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
<sup>[C]</sup> Electric strength	<b>30 / 20</b>	kV/mm	IEC 60243-1
<sup>[C]</sup> Comparative tracking index	<b>175 / -</b>	-	IEC 60112

[C]: CAMPUS

<b>Other properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<sup>[C]</sup> Water absorption	<b>7 / *</b>	%	Sim. to ISO 62
<sup>[C]</sup> Humidity absorption	<b>2.1 / *</b>	%	Sim. to ISO 62
<sup>[C]</sup> Density	<b>1570 / -</b>	kg/m <sup>3</sup>	ISO 1183

[C]: CAMPUS

Material specific properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
<sup>[C]</sup> Viscosity number	145 / *	cm <sup>3</sup> /g	ISO 307, 1157, 1628
[C]: CAMPUS			

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	80 - 105	°C	-
Pre-drying - Time	2 - 24	h	-
Processing humidity	≤0.5	%	-
Melt temperature	305 - 320	°C	-
Mold temperature	80 - 120	°C	-
Zone 1	280 - 320	°C	-
Zone 2	300 - 320	°C	-
Zone 3	300 - 320	°C	-
Nozzle temperature	300 - 320	°C	-

### Characteristics

#### Processing

Injection Molding

#### Features

Creep Resistance, Fatigue Resistance

#### Delivery form

Pellets

#### Applications

Electrical and Electronical

#### Special Characteristics

Flame retardant, Heat stabilized or stable to heat

#### 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](#)

[Supporting document for Stanyl quality processing](#)

[Trouble shooting guideline for injection molding](#)