



<b>Stanyl® TW250F6</b>		DSM Engineering Plastics	
<b>PA46-GF30 FR(17)</b>			
<b>Product Texts</b>			
30% Glass Reinforced, Heat Stabilized, Flame Retardant			
ISO 1043 PA46-GF30 FR(17)			
<b>Mechanical properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
Tensile Modulus	12000 / 8000	MPa	ISO 527-1/-2
Stress at break	180 / 125	MPa	ISO 527-1/-2
Strain at break	2.5 / 3.5	%	ISO 527-1/-2
Tensile creep modulus, 1000h	* / 7500	MPa	ISO 899-1
Charpy impact strength (+23°C)	60 / 60	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C	50 / 50	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength (+23°C)	11 / 11	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30°C	10 / 10	kJ/m <sup>2</sup>	ISO 179/1eA
<b>Thermal properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
Melting temperature (10°C/min)	295 / *	°C	ISO 11357-1/-3
Glass transition temperature, 10°C/min	75 / *	°C	ISO 11357-1/-2
Temp. of deflection under load (1.80 MPa)	290 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	290 / *	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	290 / *	°C	ISO 306
Coeff. of linear therm. expansion, parallel	25 / *	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	55 / *	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	V-0 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
UL recognition	UL / *	-	-
Burning behav. at thickness h	V-0 / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	IEC 60695-11-10
UL recognition	UL / *	-	-
Oxygen index	37 / *	%	ISO 4589-1/-2
<b>Electrical properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
Volume resistivity	1E12 / 1000000	Ohm*m	IEC 60093
Surface resistivity	* / 1E13	Ohm	IEC 60093
Electric strength	30 / -	kV/mm	IEC 60243-1
Comparative tracking index	175 / -	-	IEC 60112
<b>Other properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
Water absorption	5.9 / *	%	Sim. to ISO 62
Humidity absorption	1.6 / *	%	Sim. to ISO 62
Density	1680 / -	kg/m <sup>3</sup>	ISO 1183
<b>Material specific properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
Viscosity number	145 / *	cm <sup>3</sup> /g	ISO 307, 1157, 1628
<b>Rheological calculation properties</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			

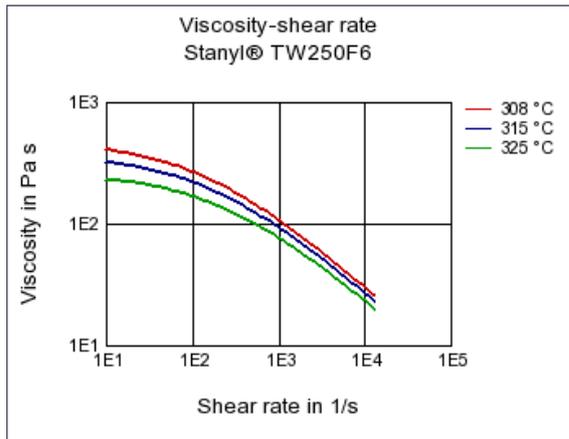
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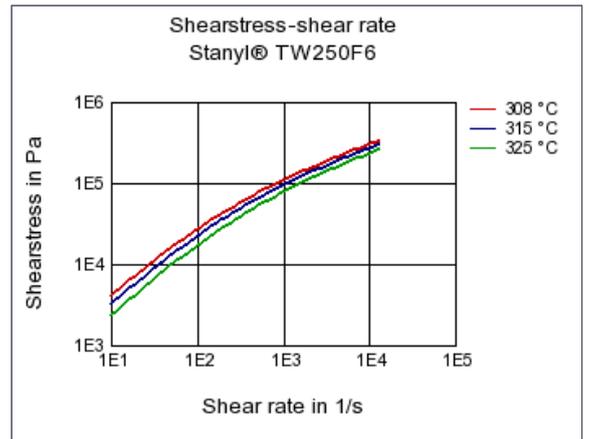
Density of melt	1450	kg/m <sup>3</sup>	-
Thermal conductivity of melt	0.26	W/(m K)	-
Spec. heat capacity of melt	1620	J/(kg K)	-
Eff. thermal diffusivity	1.11E-7	m <sup>2</sup> /s	-

**Diagrams**

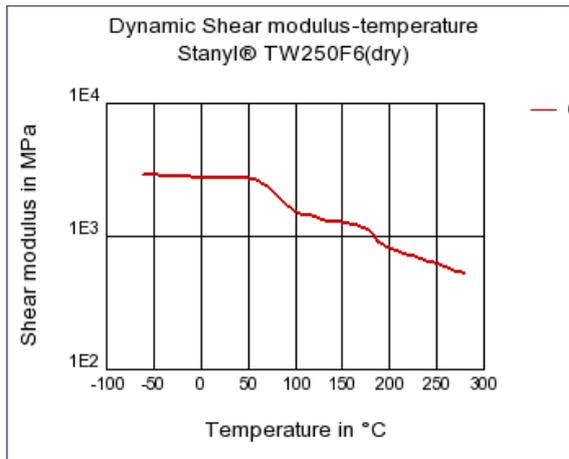
**Viscosity-shear rate**



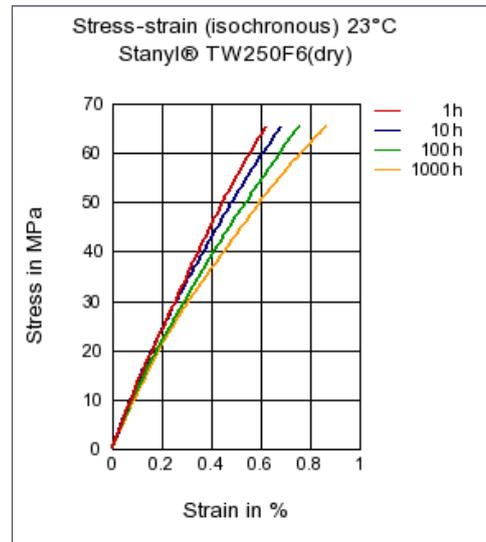
**Shearstress-shear rate**



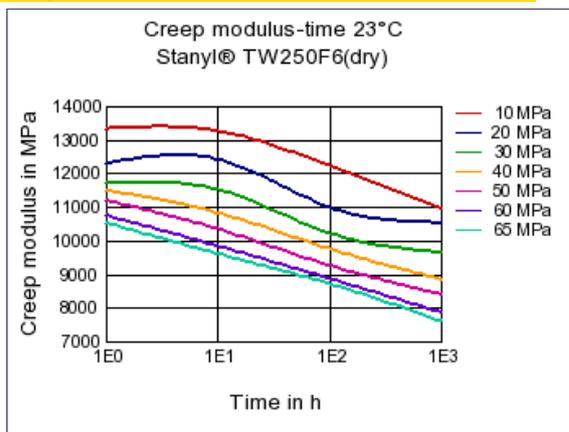
**Dynamic Shear modulus-temperature**



**Stress-strain (isochronous) 23°C**



**Creep modulus-time 23°C**



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**Characteristics**

**Processing**

Injection Molding

**Additives**

Lubricants, Release agent

**Delivery form**

Pellets

**Special Characteristics**

Flame retardant, Platable, Heat stabilized or stable to heat

**Other text information**

**Injection Molding**

[Injection Molding Recommendations](#)