


Stanyl® TW250F6

PA46-GF30 FR(17)

DSM Engineering Plastics

Product Texts

30% Glass Reinforced, Heat Stabilized, Flame Retardant

ISO 1043 PA46-GF30 FR(17)

[Stanyl website](#)

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
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/m²	ISO 179/1eU
Charpy impact strength, -30°C	50 / 50	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	11 / 11	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	10 / 10	kJ/m²	ISO 179/1eA
Thermal properties			
ISO Data			
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
Electrical properties			
ISO Data			
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
Other properties			
ISO Data			
Water absorption	5.9 / *	%	Sim. to ISO 62
Humidity absorption	1.6 / *	%	Sim. to ISO 62
Density	1680 / -	kg/m³	ISO 1183
Material specific properties			
ISO Data			
Viscosity number	145 / *	cm³/g	ISO 307, 1157, 1628
Rheological calculation properties			
ISO Data			
	Value	Unit	Test Standard

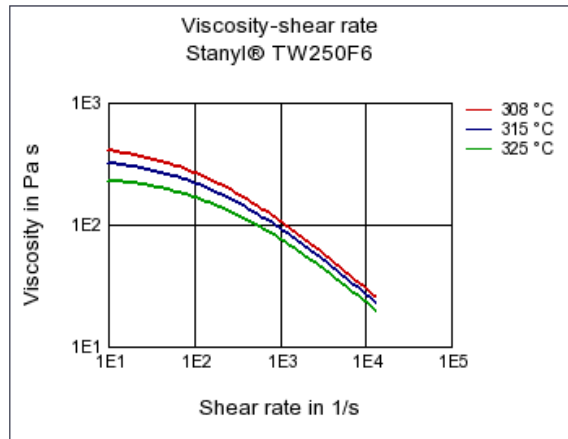
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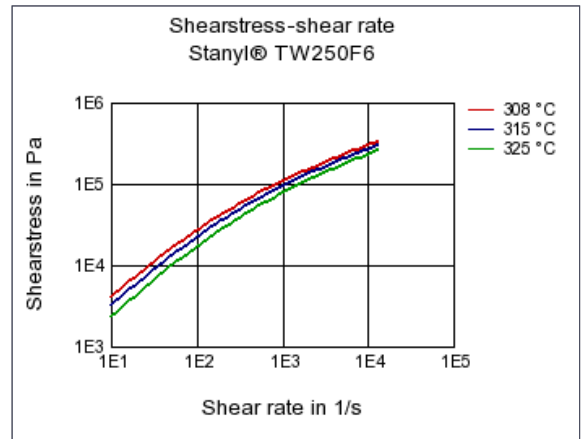
Density of melt	1450	kg/m ³	-
Thermal conductivity of melt	0.26	W/(m K)	-
Spec. heat capacity of melt	1620	J/(kg K)	-
Eff. thermal diffusivity	1.11E-7	m ² /s	-

Diagrams

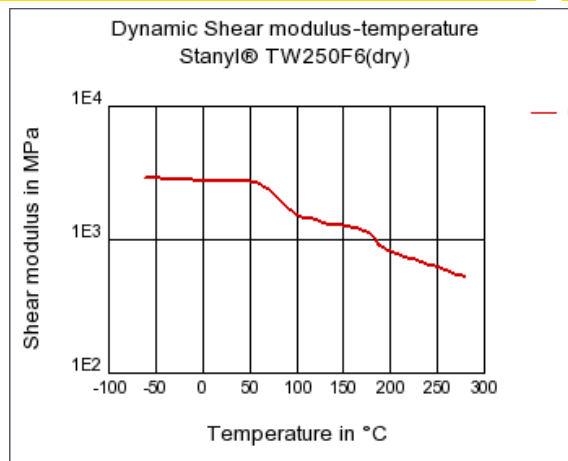
Viscosity-shear rate



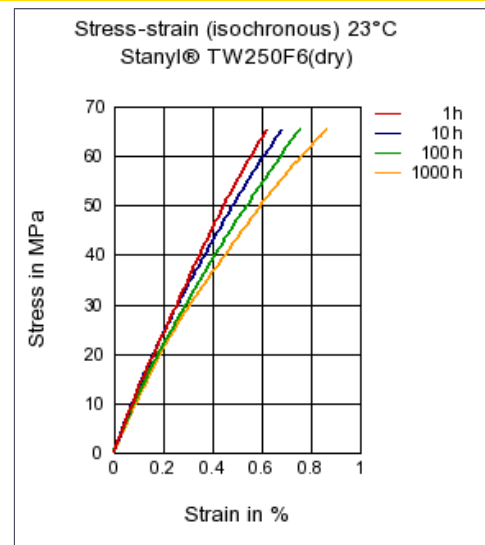
Shearstress-shear rate



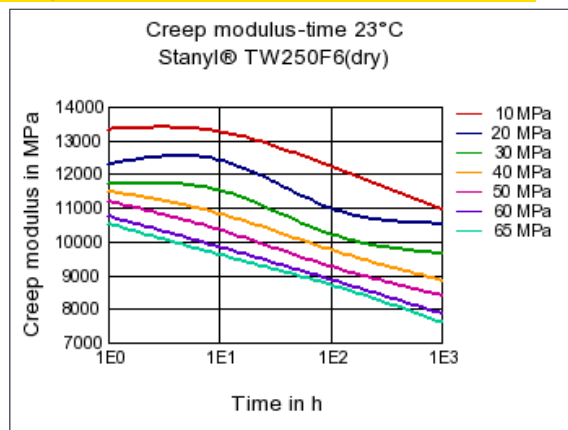
Dynamic Shear modulus-temperature



Stress-strain (isochronous) 23°C



Creep modulus-time 23°C



Stanyl® TW250F6 PA46-GF30 FR(17)		DSM Engineering Plastics
Characteristics		
Processing		Additives
Injection Molding		Lubricants, Release agent
Delivery form		Special Characteristics
Pellets		Flame retardant, Platable, Heat stabilized or stable to heat
Other text information		
Injection Molding		
Injection Molding Recommendations		