


Stanyl® TW271F6

(PA46+PTFE)-GF30

DSM Engineering Plastics

Product Texts

30% Glass Reinforced, Heat Stabilized, Wear and Friction Modified

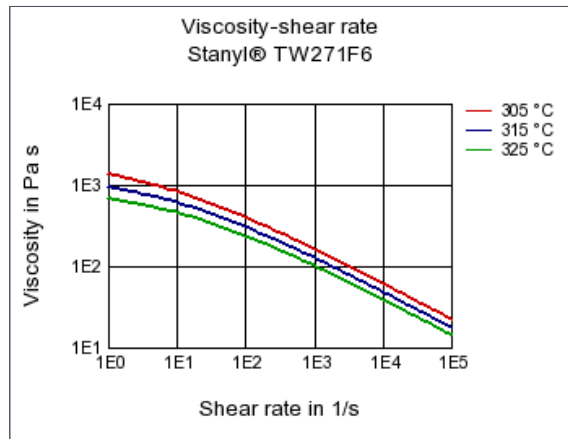
ISO 1043 (PA46+PTFE)-GF30

[Stanyl website](#)

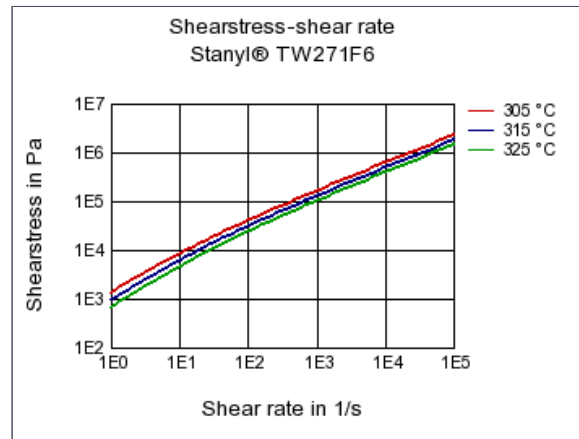
Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	10000 / 6000	MPa	ISO 527-1/-2
Stress at break	190 / 105	MPa	ISO 527-1/-2
Strain at break	3.5 / 6.5	%	ISO 527-1/-2
Charpy impact strength (+23°C)	85 / 90	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	65 / 70	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	13 / 17	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	11 / 11	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	60 / *	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.6 / *	mm	IEC 60695-11-10
Burning behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	IEC 60695-11-10
Electrical properties			
ISO Data			
Volume resistivity	1E12 / 1E7	Ohm*m	IEC 60093
Surface resistivity	* / 1E13	Ohm	IEC 60093
Comparative tracking index	400 / -	-	IEC 60112
Other properties			
ISO Data			
Water absorption	7.4 / *	%	Sim. to ISO 62
Humidity absorption	2 / *	%	Sim. to ISO 62
Density	1540 / -	kg/m³	ISO 1183
Material specific properties			
ISO Data			
Viscosity number	145 / *	cm³/g	ISO 307, 1157, 1628
Rheological calculation properties			
ISO Data			
Density of melt	1320	kg/m³	-
Thermal conductivity of melt	0.319	W/(m K)	-
Spec. heat capacity of melt	1890	J/(kg K)	-
Eff. thermal diffusivity	1.26E-7	m²/s	-

Diagrams

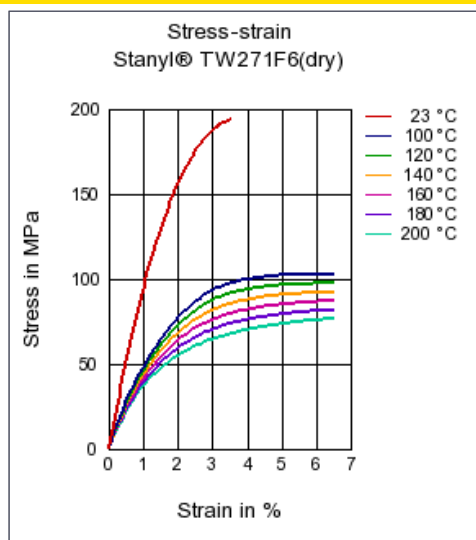
Viscosity-shear rate



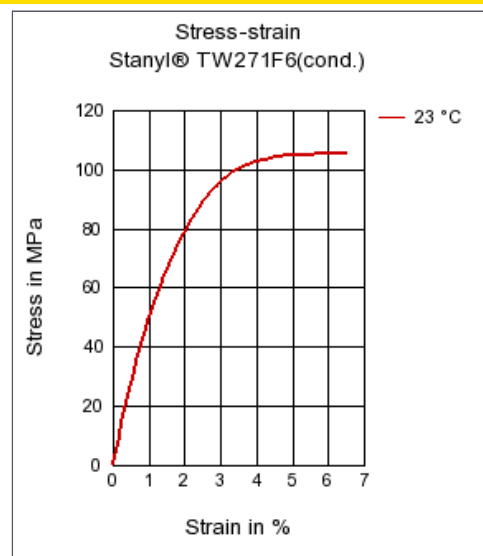
Shearstress-shear rate



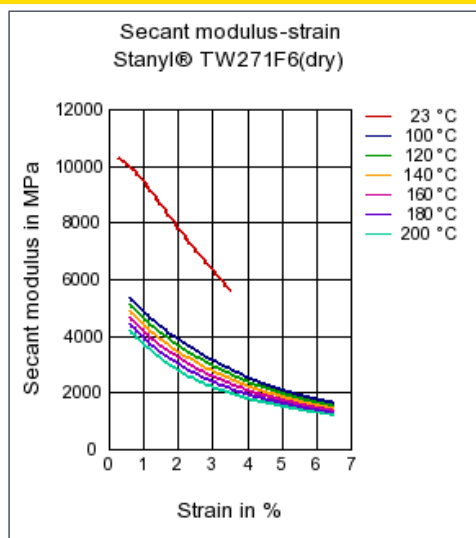
Stress-strain



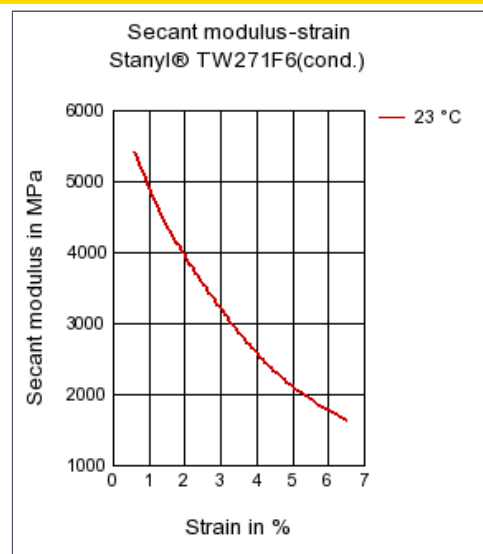
Stress-strain



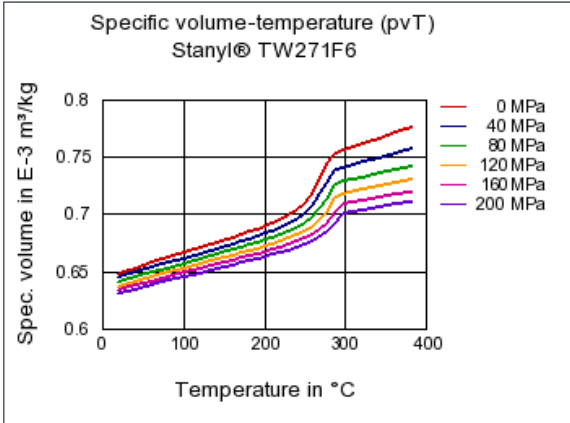
Secant modulus-strain



Secant modulus-strain



Specific volume-temperature (pvT)



Characteristics

Processing

Injection Molding

Special Characteristics

Platable, Heat stabilized or stable to heat

Delivery form

Pellets

Other text information

Injection Molding

[Injection Molding Recommendations](#)