


**Stanyl® TW200F6**

PA46-GF30

DSM Engineering Plastics

**Product Texts**

30% Glass Reinforced, Heat Stabilized

ISO 1043 PA46-GF30

[Stanyl website](#)

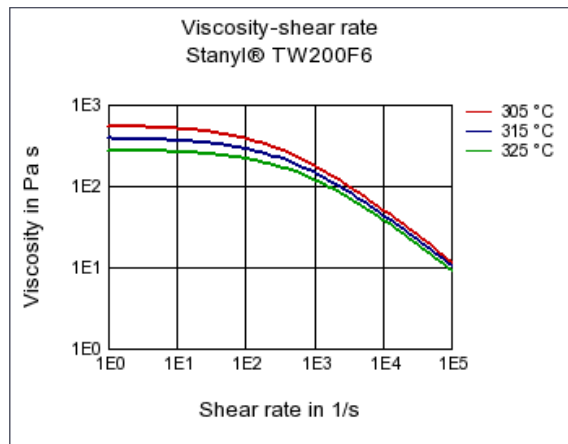
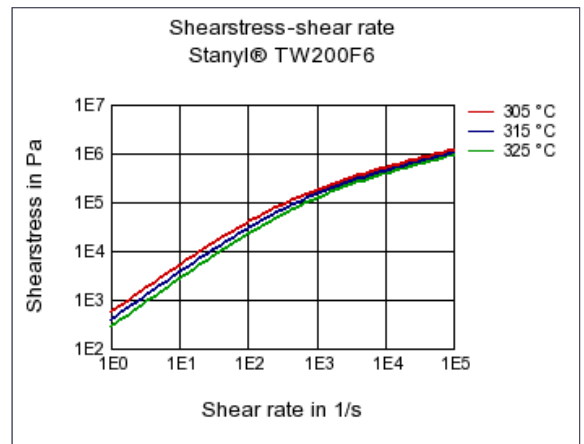
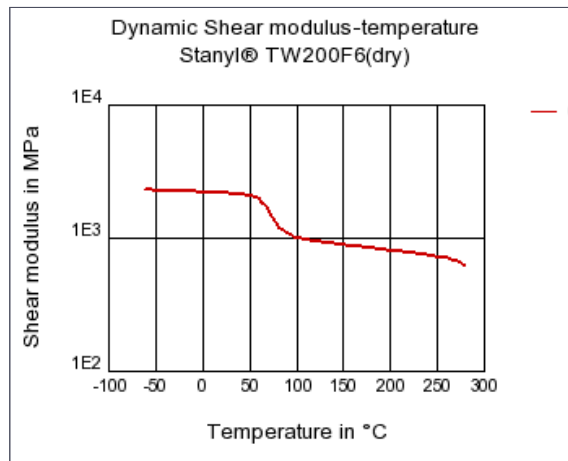
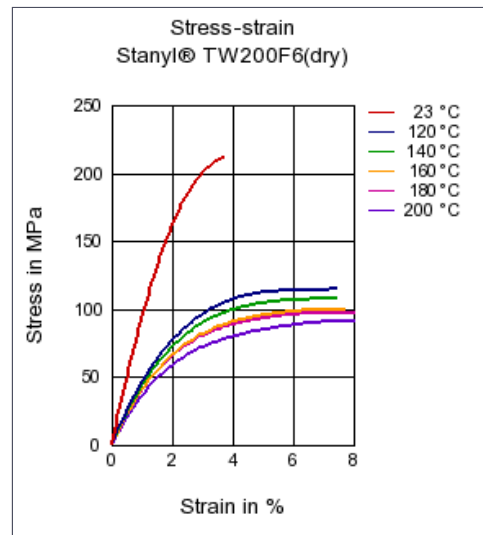
Mechanical properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
Tensile Modulus	10000 / 6000	MPa	ISO 527-1/-2
Stress at break	210 / 115	MPa	ISO 527-1/-2
Strain at break	4 / 7	%	ISO 527-1/-2
Tensile creep modulus, 1000h	* / 4500	MPa	ISO 899-1
Charpy impact strength (+23°C)	80 / 100	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	65 / 75	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	12 / 21	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	11 / 11	kJ/m²	ISO 179/1eA
<b>Thermal properties</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	60 / *	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
UL recognition	UL / *	-	-
Burning behav. at thickness h	HB / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	IEC 60695-11-10
UL recognition	UL / *	-	-
Oxygen index	22 / *	%	ISO 4589-1/-2
<b>Electrical properties</b>			
<b>ISO Data</b>			
Relative permittivity, 100Hz	4.3 / 16	-	IEC 60250
Relative permittivity, 1MHz	4 / 4.7	-	IEC 60250
Dissipation factor, 100Hz	70 / 6000	E-4	IEC 60250
Dissipation factor, 1MHz	200 / 1000	E-4	IEC 60250
Volume resistivity	1E12 / 1E7	Ohm*m	IEC 60093
Surface resistivity	* / 1E13	Ohm	IEC 60093
Electric strength	30 / 20	kV/mm	IEC 60243-1
Comparative tracking index	300 / -	-	IEC 60112
<b>Other properties</b>			
<b>ISO Data</b>			
Water absorption	9.5 / *	%	Sim. to ISO 62
Humidity absorption	2.6 / *	%	Sim. to ISO 62
Density	1410 / -	kg/m³	ISO 1183

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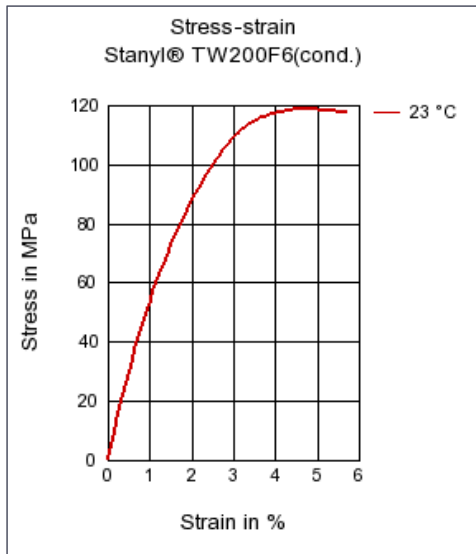
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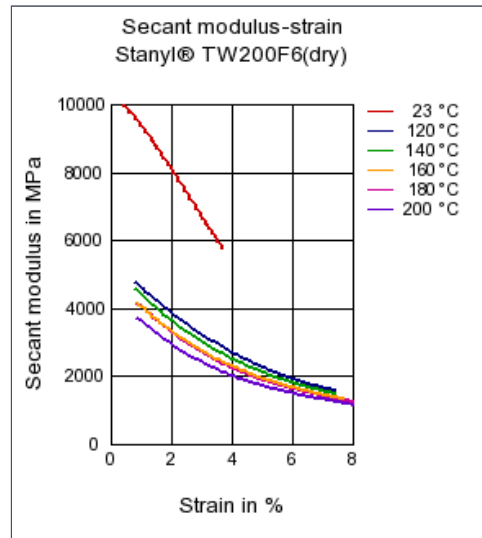
Material specific properties	dry / cond	Unit	Test Standard
<b>ISO Data</b>			
Viscosity number	145 / *	cm³/g	ISO 307, 1157, 1628
<b>Rheological calculation properties</b>			
<b>ISO Data</b>			
Density of melt	1210	kg/m³	-
Thermal conductivity of melt	0.296	W/(m K)	-
Spec. heat capacity of melt	2200	J/(kg K)	-
Eff. thermal diffusivity	1.1E-7	m²/s	-

**Diagrams****Viscosity-shear rate****Shearstress-shear rate****Dynamic Shear modulus-temperature****Stress-strain**

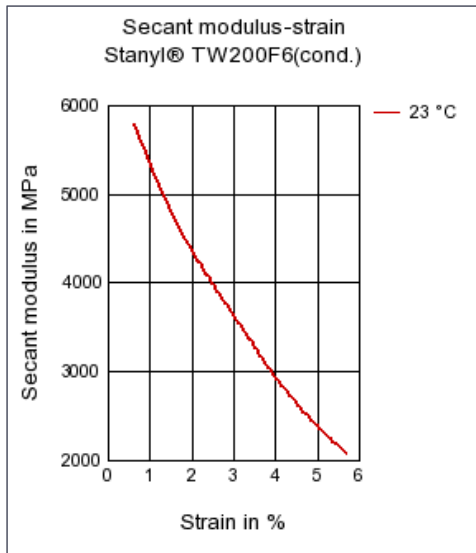
Stress-strain



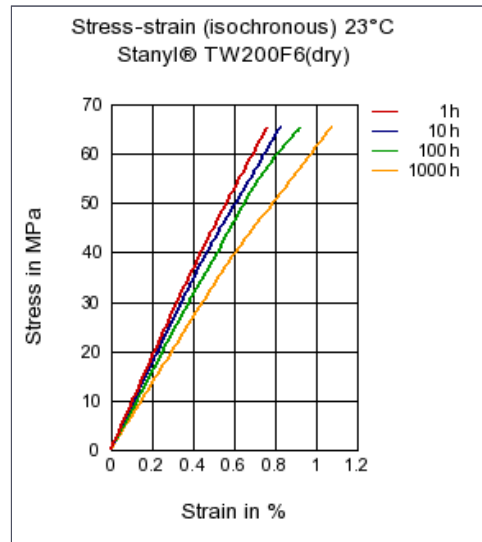
Secant modulus-strain



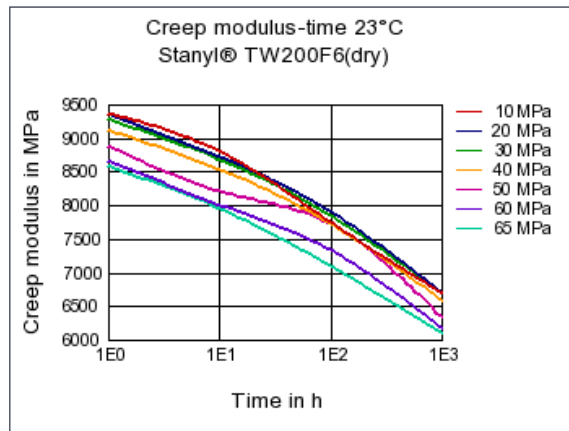
Secant modulus-strain



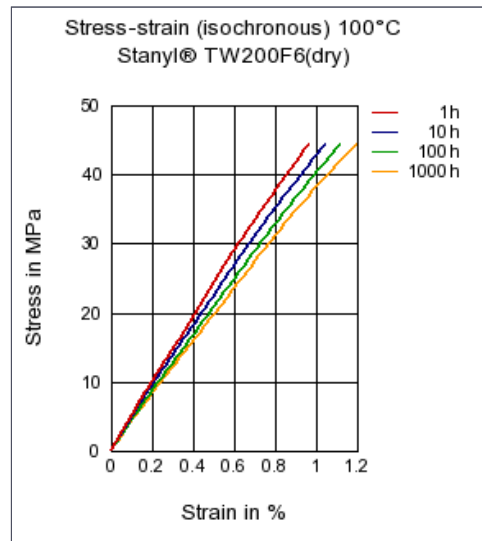
Stress-strain (isochronous) 23°C



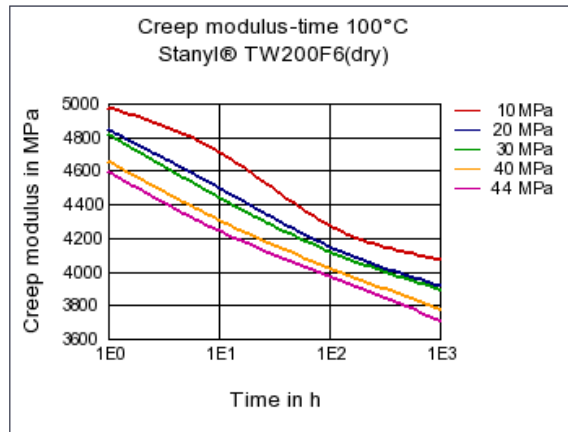
Creep modulus-time 23°C



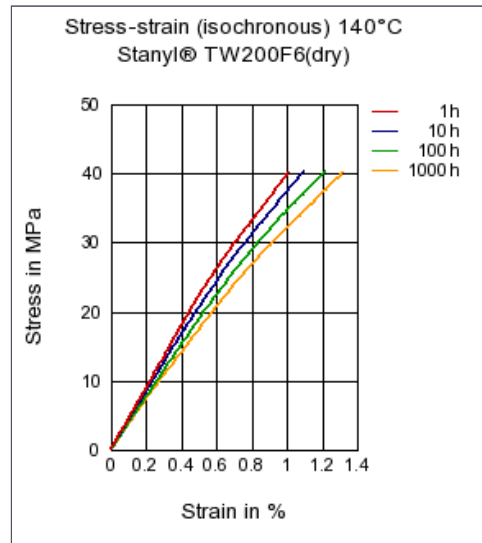
Stress-strain (isochronous) 100°C



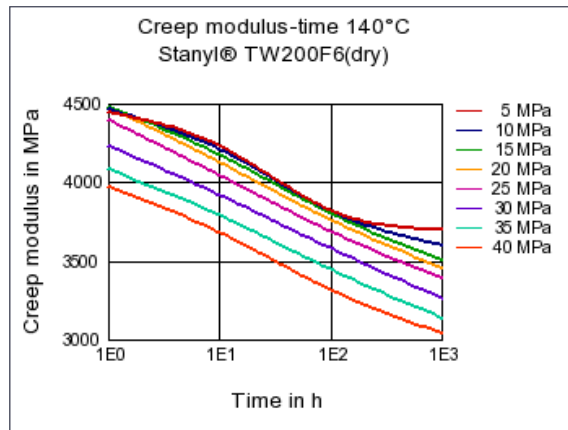
## Creep modulus-time 100°C



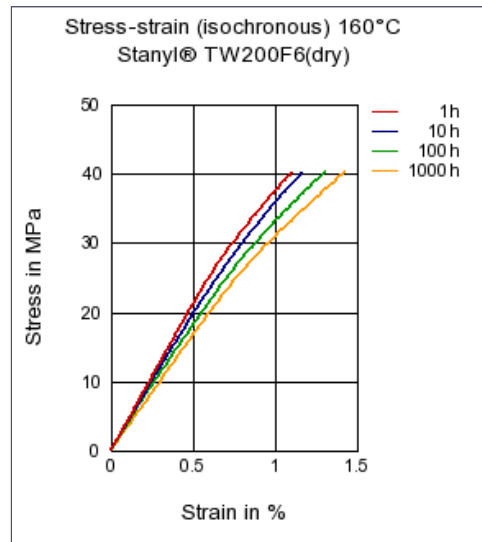
## Stress-strain (isochronous) 140°C



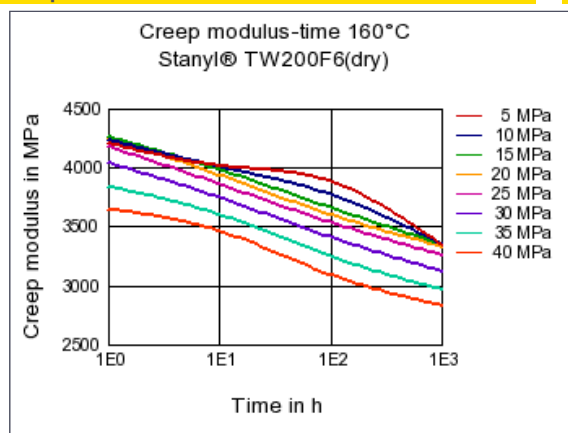
## Creep modulus-time 140°C



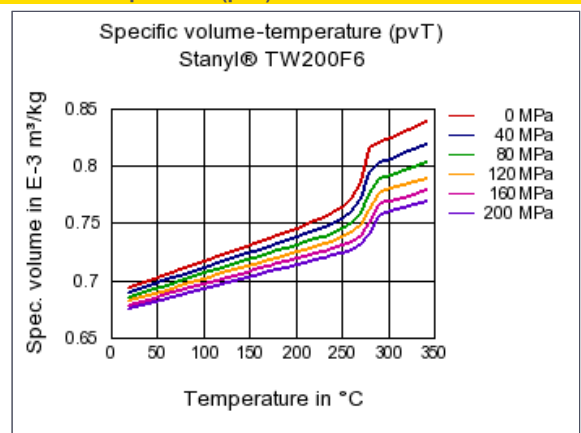
## Stress-strain (isochronous) 160°C



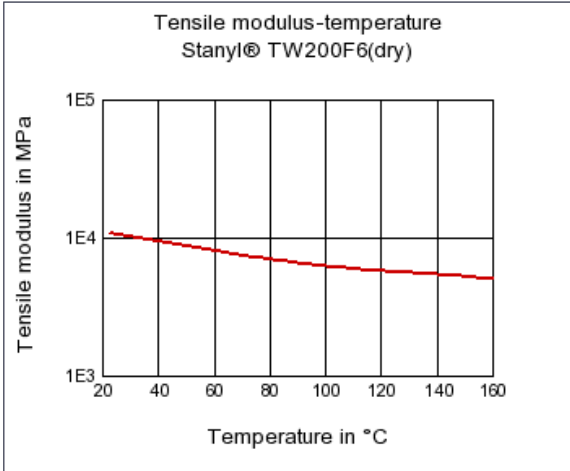
## Creep modulus-time 160°C



## Specific volume-temperature (pvT)



Tensile modulus-temperature



Characteristics

**Processing**  
Injection Molding

**Special Characteristics**  
Platable, Heat stabilized or stable to heat

**Delivery form**  
Pellets

Other text information

**Injection Molding**  
[Injection Molding Recommendations](#)