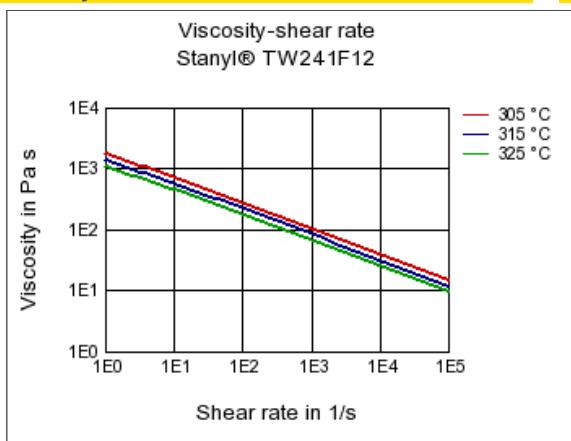


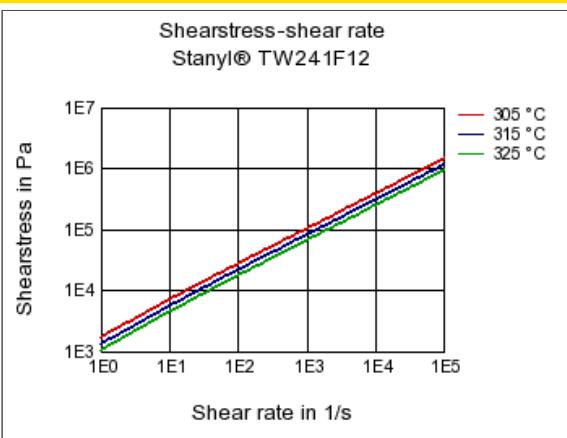
Stanyl® TW241F12						
PA46-GF60	DSM Engineering Plastics					
Product Texts						
60% Glass Reinforced, Heat Stabilized, Good Flow						
ISO 1043 PA46-GF60						
Stanyl website						
Rheological properties	dry / cond	Unit	Test Standard			
ISO Data						
Molding shrinkage, parallel	0.4 / *	%	ISO 294-4, 2577			
Molding shrinkage, normal	0.7 / *	%	ISO 294-4, 2577			
Mechanical properties						
ISO Data						
Tensile Modulus	20000 / 12000	MPa	ISO 527-1/-2			
Stress at break	255 / 170	MPa	ISO 527-1/-2			
Strain at break	2 / 3	%	ISO 527-1/-2			
Tensile creep modulus, 1000h	* / 10500	MPa	ISO 899-1			
Charpy impact strength (+23°C)	90 / 100	kJ/m ²	ISO 179/1eU			
Charpy impact strength, -30°C	65 / 75	kJ/m ²	ISO 179/1eU			
Charpy notched impact strength (+23°C)	18 / 18	kJ/m ²	ISO 179/1eA			
Charpy notched impact strength, -30°C	18 / 18	kJ/m ²	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	20 / *	E-6/K	ISO 11359-1/-2			
Coeff. of linear therm. expansion, normal	35 / *	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			
Other properties						
ISO Data						
Water absorption	5.4 / *	%	Sim. to ISO 62			
Humidity absorption	1.4 / *	%	Sim. to ISO 62			
Density	1760 / -	kg/m ³	ISO 1183			
Material specific properties						
ISO Data						
Viscosity number	75 / *	cm ³ /g	ISO 307, 1157, 1628			
Rheological calculation properties						
ISO Data						
Density of melt	1550	kg/m ³	-			
Thermal conductivity of melt	0.43	W/(m K)	-			
Spec. heat capacity of melt	1450	J/(kg K)	-			
Eff. thermal diffusivity	1.94E-7	m ² /s	-			

Diagrams

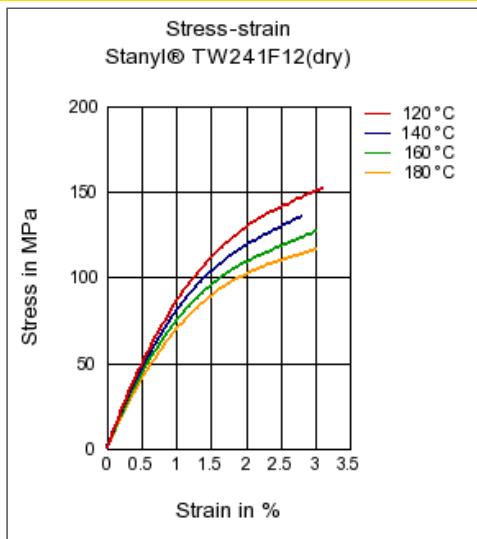
Viscosity-shear rate



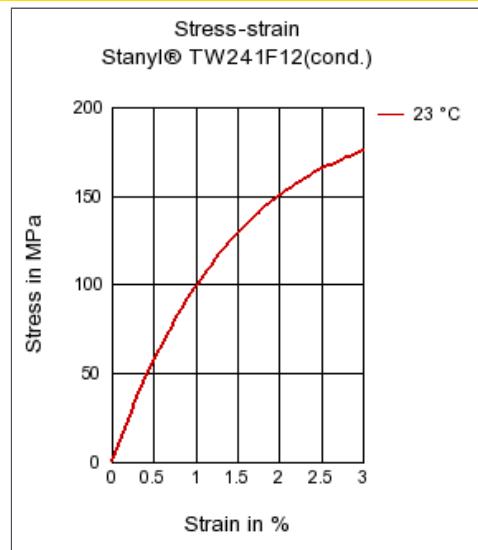
Shearstress-shear rate



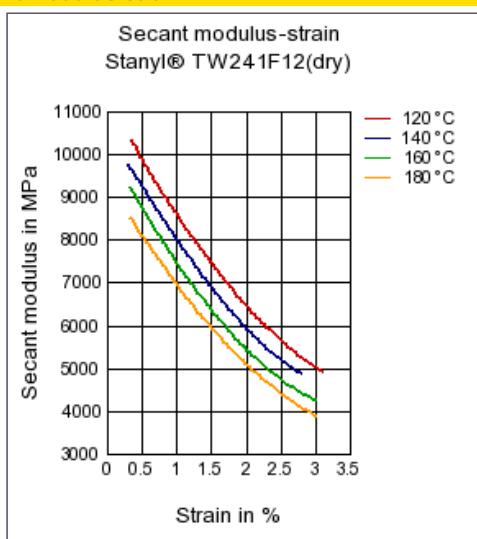
Stress-strain



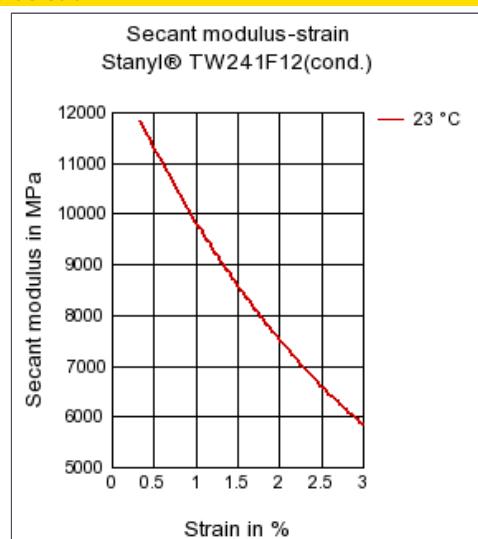
Stress-strain



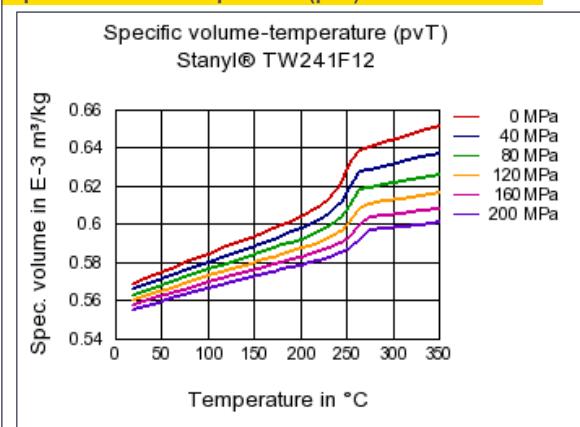
Secant modulus-strain



Secant modulus-strain



Specific volume-temperature (pvT)



Characteristics

Processing

Injection Molding

Special Characteristics

Platable, Heat stabilized or stable to heat

Other text information

Injection Molding

[Injection Molding Recommendations](#)