


Stanyl® TW341

PA46

DSM Engineering Plastics

Product Texts

Heat Stabilized, Lubricated

ISO 1043 PA46

[Stanyl website](#)

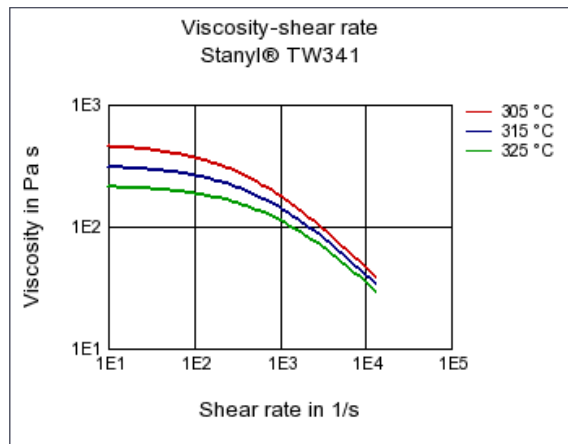
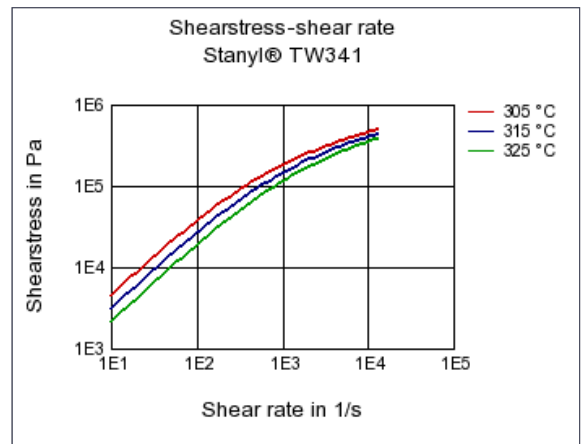
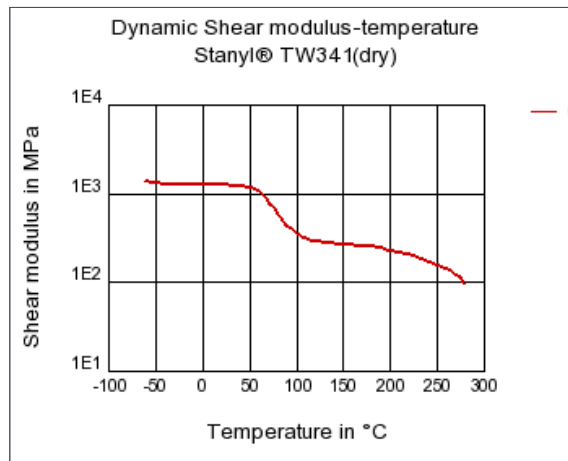
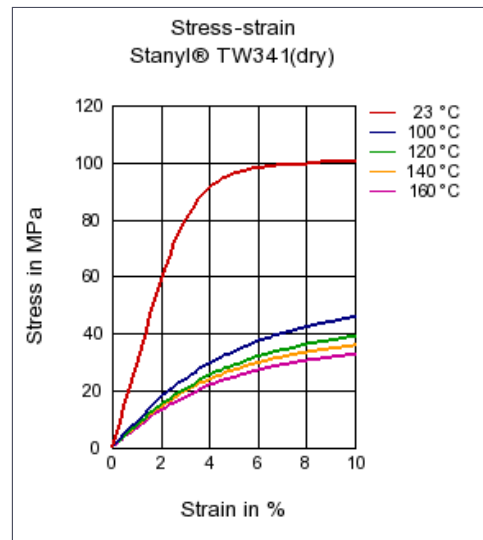
Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	3300 / 1000	MPa	ISO 527-1/-2
Yield stress	100 / 55	MPa	ISO 527-1/-2
Yield strain	10 / 20	%	ISO 527-1/-2
Nominal strain at break	40 / >50	%	ISO 527-1/-2
Tensile creep modulus, 1000h	* / 550	MPa	ISO 899-1
Charpy impact strength (+23°C)	N / N	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	N / N	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	10 / 35	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	4 / 4	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)	190 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	280 / *	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	290 / *	°C	ISO 306
Coeff. of linear therm. expansion, parallel	85 / *	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	110 / *	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	V-2 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
UL recognition	UL / *	-	-
Burning behav. at thickness h	V-2 / *	class	IEC 60695-11-10
Thickness tested	0.8 / *	mm	IEC 60695-11-10
UL recognition	UL / *	-	-
Oxygen index	27 / *	%	ISO 4589-1/-2
Electrical properties			
ISO Data			
Relative permittivity, 100Hz	3.9 / 22	-	IEC 60250
Relative permittivity, 1MHz	3.6 / 4.5	-	IEC 60250
Dissipation factor, 100Hz	70 / 8700	E-4	IEC 60250
Dissipation factor, 1MHz	260 / 1200	E-4	IEC 60250
Volume resistivity	1E13 / 1E7	Ohm*m	IEC 60093
Surface resistivity	* / 1E13	Ohm	IEC 60093
Electric strength	25 / 15	kV/mm	IEC 60243-1
Comparative tracking index	400 / -	-	IEC 60112
Other properties			
ISO Data			
Water absorption	13.5 / *	%	Sim. to ISO 62
Humidity absorption	3.7 / *	%	Sim. to ISO 62
Density	1180 / -	kg/m ³	ISO 1183

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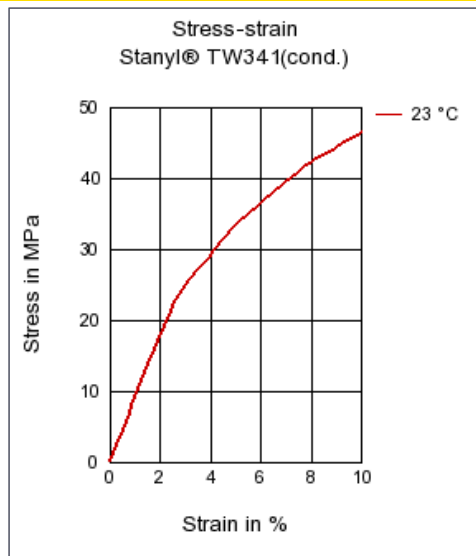
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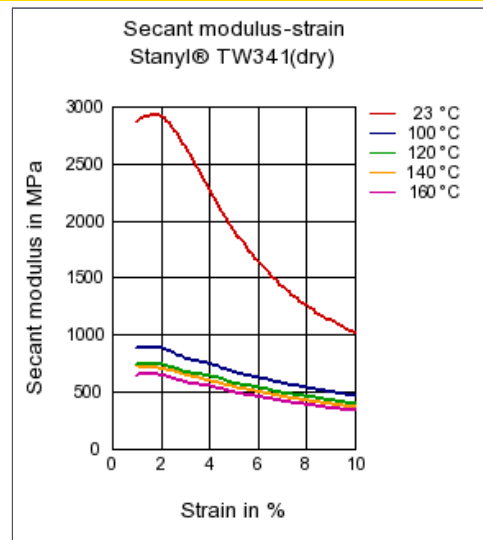
Material specific properties	dry / cond	Unit	Test Standard
ISO Data			
Viscosity number	185 / *	cm³/g	ISO 307, 1157, 1628
Rheological calculation properties			
ISO Data			
Density of melt	978	kg/m³	-
Thermal conductivity of melt	0.252	W/(m K)	-
Spec. heat capacity of melt	2800	J/(kg K)	-
Eff. thermal diffusivity	9.21E-8	m²/s	-

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

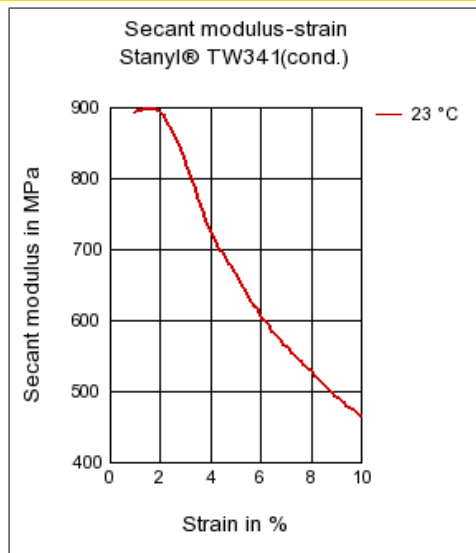
Stress-strain



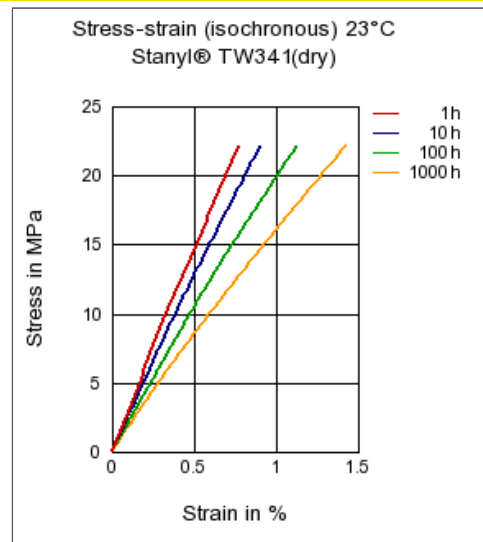
Secant modulus-strain



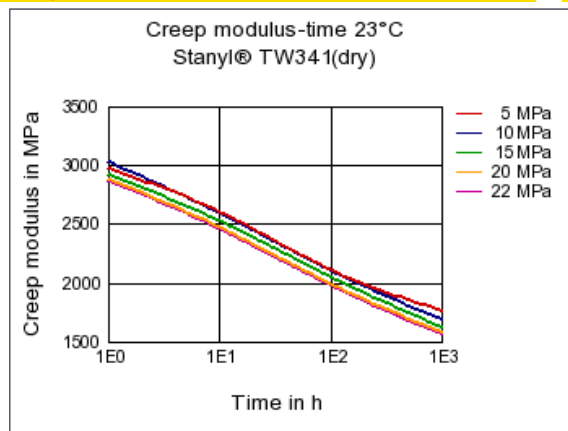
Secant modulus-strain



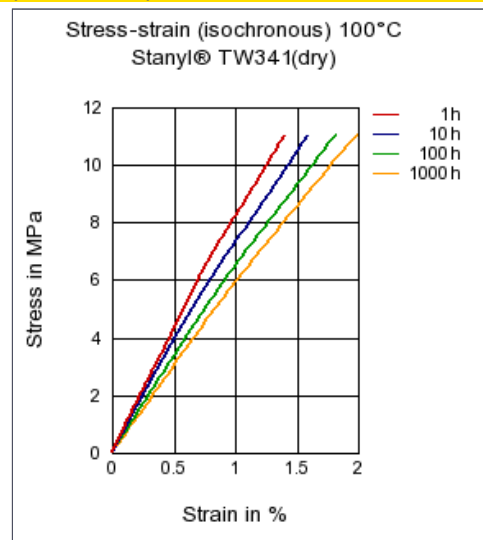
Stress-strain (isochronous) 23°C



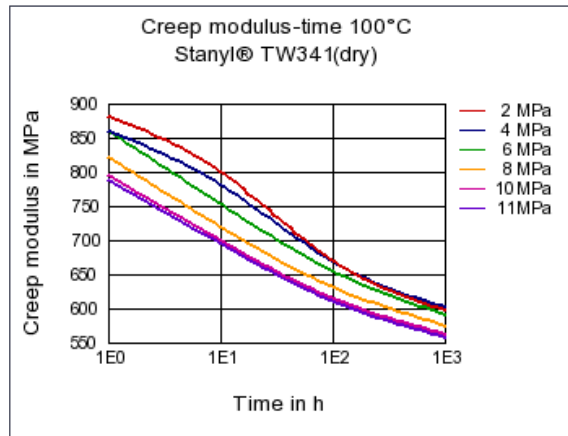
Creep modulus-time 23°C



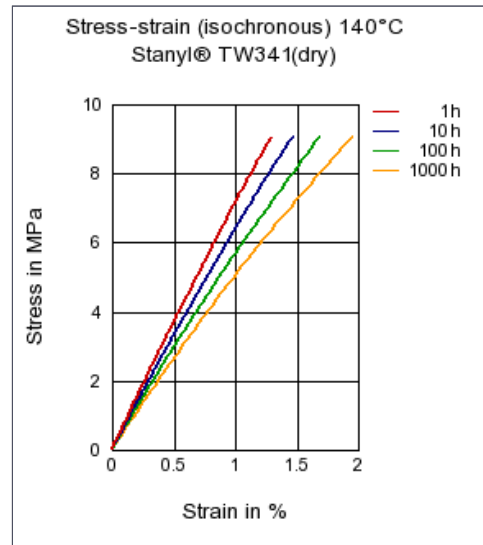
Stress-strain (isochronous) 100°C



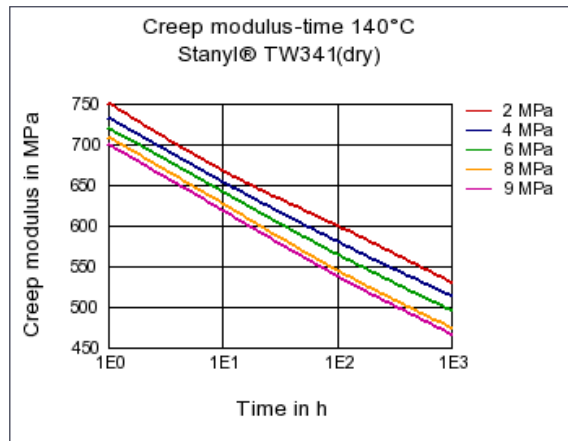
Creep modulus-time 100°C



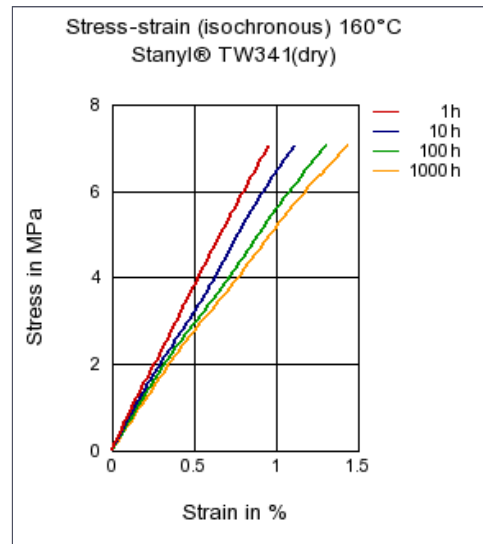
Stress-strain (isochronous) 140°C



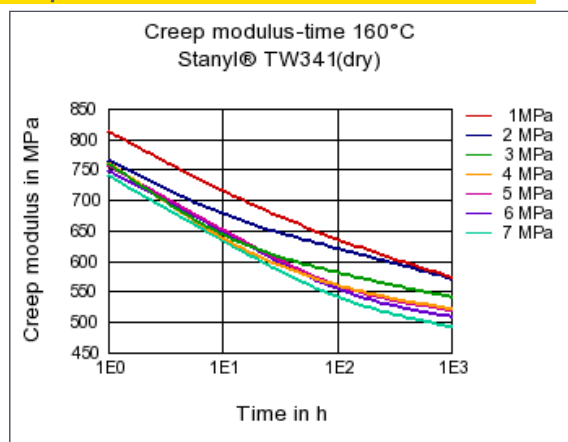
Creep modulus-time 140°C



Stress-strain (isochronous) 160°C



Creep modulus-time 160°C



Characteristics

Stanyl® TW341 PA46		DSM Engineering Plastics
Processing Injection Molding	Additives Lubricants, Release agent	
Delivery form Pellets	Special Characteristics Platable, Heat stabilized or stable to heat	
Other text information		
Injection Molding Injection Molding Recommendations		
Empty content area for Injection Molding Recommendations		