Stanyl® TW363

PA46-I

DSM Engineering Plastics

Product Texts

Heat Stabilized, Impact Modified

ISO 1043 PA46-I

Stanyl website

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	1850 / 600	MPa	ISO 527-1/-2
Yield stress	60 / 45	MPa	ISO 527-1/-2
Yield strain	20 / 25	%	ISO 527-1/-2
Nominal strain at break	>50 / >50	%	ISO 527-1/-2
Charpy impact strength (+23°C)	N / N	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	N / N	kJ/m²	ISO 179/1eU
Charpy notched impact strength (+23°C)	75 / 125	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	26 / 30	kJ/m²	ISO 179/1eA

Thermal properties	dry / cond	Unit	Test Standard
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)	90 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	200 / *	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	250 / *	°C	ISO 306
Coeff. of linear therm. expansion, parallel	18 / *	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	20 / *	E-6/K	ISO 11359-1/-2
Oxygen index	27 / *	%	ISO 4589-1/-2

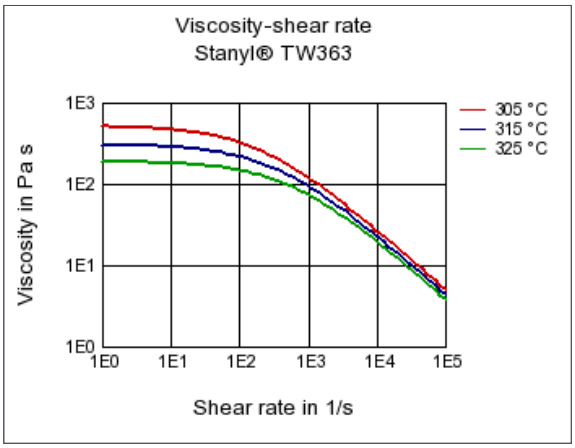
Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	3.6 / 14	-	IEC 60250
Relative permittivity, 1MHz	3.2 / 4	-	IEC 60250
Dissipation factor, 100Hz	120 / 6500	E-4	IEC 60250
Dissipation factor, 1MHz	190 / 1000	E-4	IEC 60250
Volume resistivity	1E13 / 1E7	Ohm*m	IEC 60093
Surface resistivity	* / 1E13	Ohm	IEC 60093
Electric strength	25 / 15	kV/mm	IEC 60243-1
Comparative tracking index	475 / -	-	IEC 60112

Other properties	dry / cond	Unit	Test Standard
ISO Data			
Water absorption	11 / *	%	Sim. to ISO 62
Humidity absorption	2.95 / *	%	Sim. to ISO 62
Density	1100 / -	kg/m³	ISO 1183

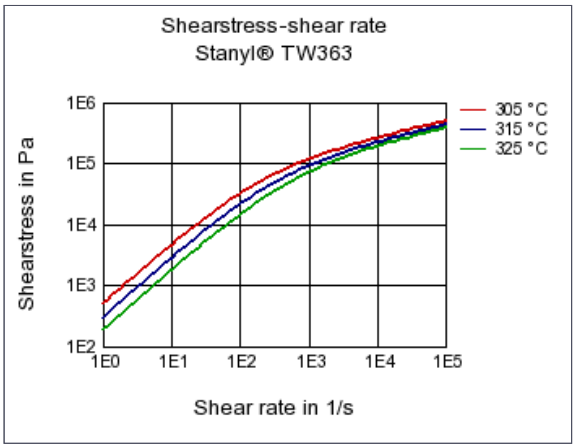
Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Density of melt	913	kg/m³	-
Thermal conductivity of melt	0.24	W/(m K)	-
Spec. heat capacity of melt	2550	J/(kg K)	-
Eff. thermal diffusivity	9.82E-7	m²/s	-

Diagrams

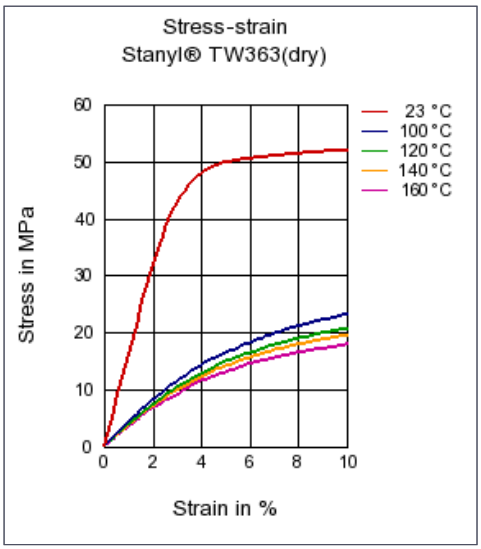
Viscosity-shear rate



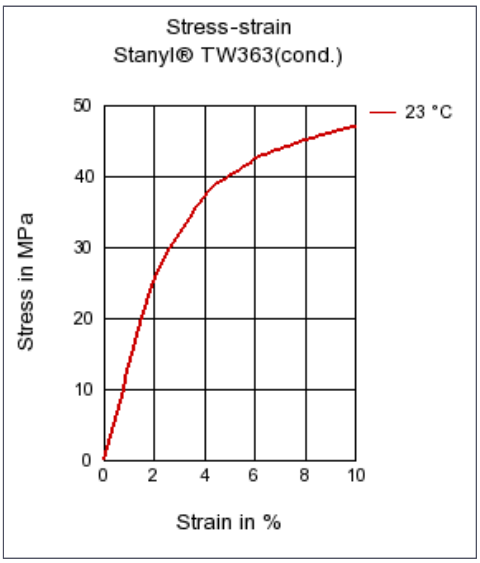
Shearstress-shear rate



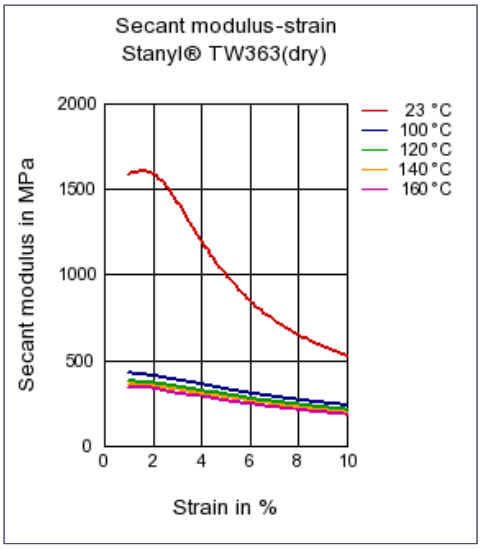
Stress-strain



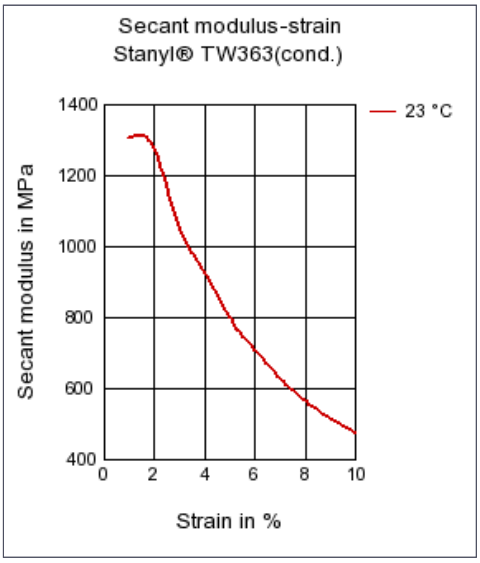
Stress-strain



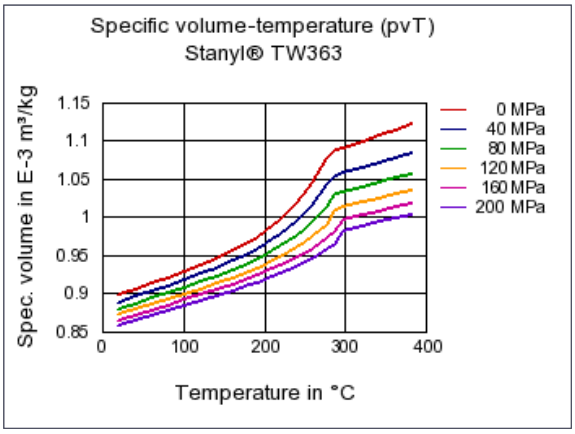
Secant modulus-strain



Secant modulus-strain



Specific volume-temperature (pvT)



Characteristics

Processing
Injection Molding, Profile Extrusion, Other Extrusion

Special Characteristics
Platable, High impact or impact modified, Heat stabilized or stable to heat

Delivery form
Pellets

Other text information

Injection Molding
Injection Molding Recommendations