Stanyl® TE373

PA46 Envalior

Product Texts

Heat Stabilized, Wear and Friction Modified

ISO 1043 PA46

Stanyl® TE373 is a friction-modified high heat polyamide that offers excellent wear & friction properties in combination with outstanding creep resistance, strength, stiffness and fatigue resistance especially at high temperatures in combination with cycle-time advantages and excellent flow.

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
Tensile Modulus	2800 / 1000	MPa	ISO 527
Yield stress	85 / 50	MPa	ISO 527
Yield strain	10 / 20	%	ISO 527
Nominal strain at break	10 / 15	%	ISO 527
Charpy impact strength, +23°C	150 / N	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	105 / 120	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	5 / 10	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	4 / 4	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	190 / *	°C	ISO 75-1/-2
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

Other properties	dry / cond	Unit	Test Standard
ISO Data			
Water absorption	12.4 / *	%	Sim. to ISO 62
Humidity absorption	3.4 / *	%	Sim. to ISO 62
Density	1170 / -	kg/m³	ISO 1183

Material specific properties	dry / cond	Unit	Test Standard
ISO Data			
Viscosity number	180 / *	cm³/g	ISO 307, 1157, 1628

Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Density of melt	1000	kg/m³	-
Thermal conductivity of melt	0.253	W/(m K)	-
Spec. heat capacity of melt	2780	J/(kg K)	-
Eff. thermal diffusivity	8.96E-8	m²/s	-

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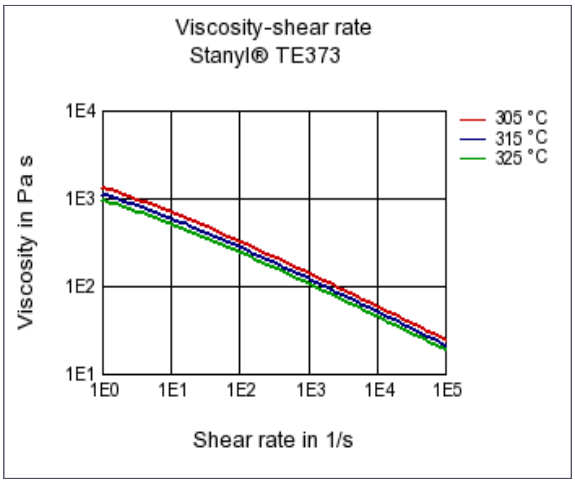
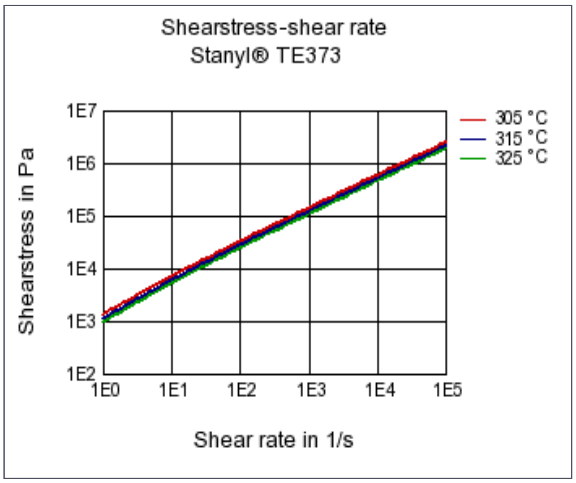
Diagrams

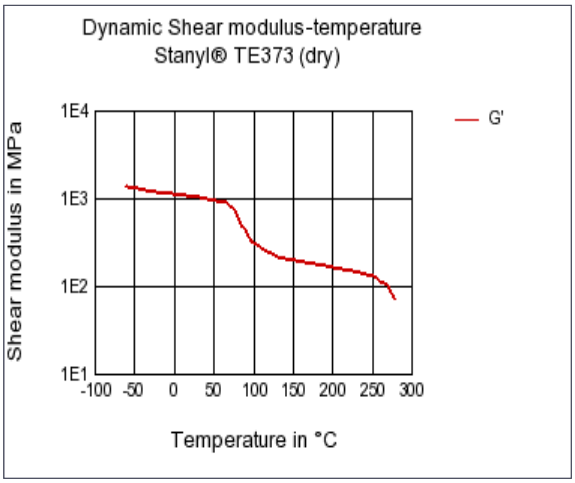
Viscosity-shear rate



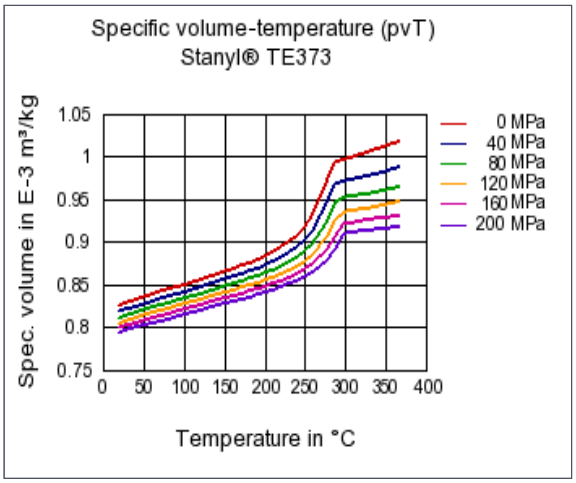
Shearstress-shear rate



Dynamic Shear modulus-temperature



Specific volume-temperature (pvT)



Characteristics

Processing

Injection Molding

Features

Tribologic Grade

Special Characteristics

Heat stabilized or stable to heat

Other text information

Injection Molding

Injection Molding Recommendations
Hot runner recommendations for molding high heat performance Engineering Materials
Steel recommendations for molds screws and barrels
Supporting document for Stanyl quality processing
Trouble shooting guideline for injection molding

Chemical Media Resistance

Alcohols

Ethanol (23 °C)

Hydrocarbons

Toluene (23 °C)

Ketones

☺	Acetone (23°C)

Ethers

☺	Diethyl ether (23°C)

Other

☺	Ethyl Acetate (23°C)
☺	Water (23°C)