Arnite® T06 200

PBT Envalior

Product Texts

Low Viscosity, Injection Molding, Extrusion, Food Contact Quality

ISO 1043 PBT

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	22	cm³/10min	ISO 1133
Temperature	250	°C	-
Load	2.16	kg	-
Molding shrinkage, parallel	1.8	%	ISO 294-4, 2577
Molding shrinkage, normal	1.8	%	ISO 294-4, 2577

Mechanical properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	2700	MPa	ISO 527
Yield stress	55	MPa	ISO 527
Yield strain	3.5	%	ISO 527
Nominal strain at break	>50	%	ISO 527
Charpy impact strength, +23°C	N	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	N	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	5	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	5	kJ/m²	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
ISO Data			
Melting temperature, 10°C/min	225	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.80 MPa	55	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	165	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	90	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	90	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	-
Yellow Card available	yes	-	-
Burning behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	3.0	mm	-
Yellow Card available	yes	-	-

Electrical properties	Value	Unit	Test Standard
ISO Data			
Relative permittivity, 100Hz	3.5	-	IEC 62631-2-1
Relative permittivity, 1MHz	3.2	-	IEC 62631-2-1
Dissipation factor, 100Hz	20	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	200	E-4	IEC 62631-2-1
Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
Electric strength	27	kV/mm	IEC 60243-1
Comparative tracking index	600	-	IEC 60112

Other properties	Value	Unit	Test Standard
ISO Data			
Water absorption	0.45	%	Sim. to ISO 62
Humidity absorption	0.18	%	Sim. to ISO 62
Density	1300	kg/m³	ISO 1183

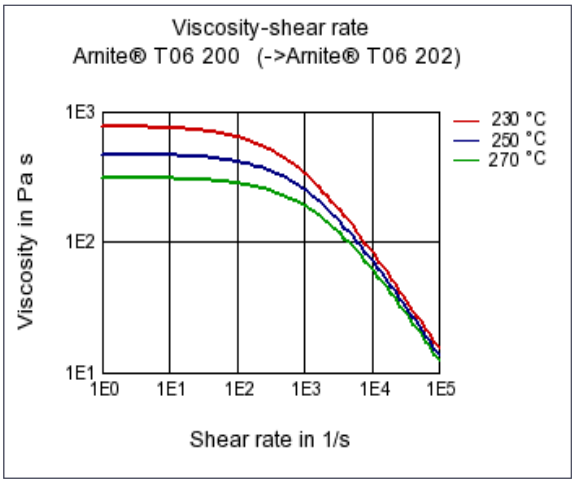
Arnite® T06 200

PBT — Envalior

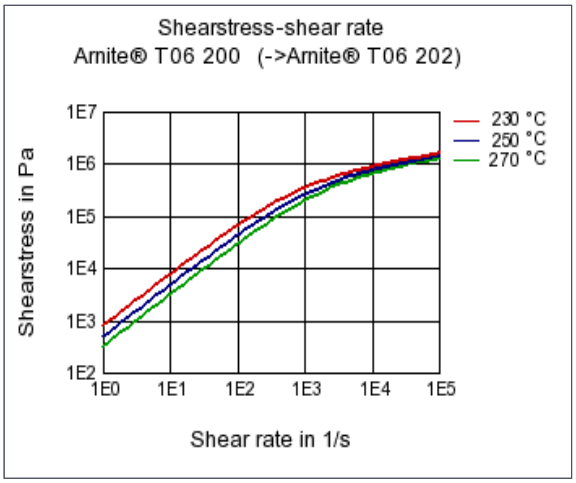
Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Density of melt	1040	kg/m³	-
Thermal conductivity of melt	0.109	W/(m K)	-
Spec. heat capacity of melt	2260	J/(kg K)	-
Eff. thermal diffusivity	4.65E-8	m²/s	-

Diagrams

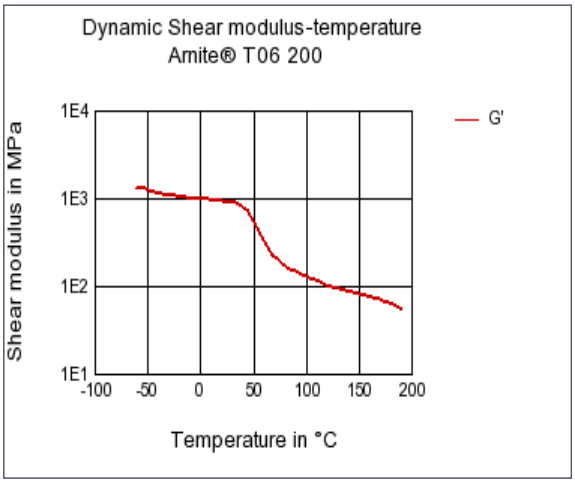
Viscosity-shear rate



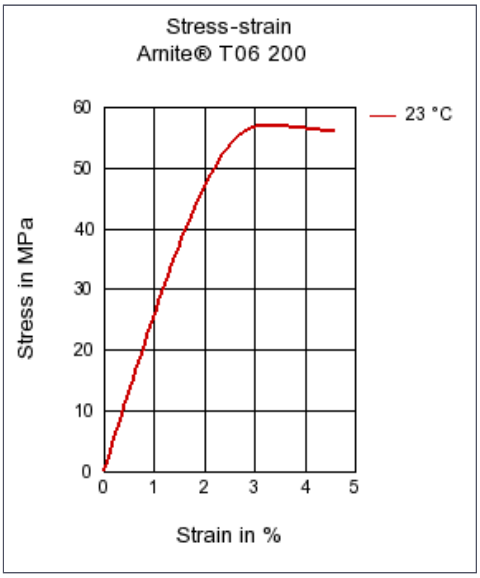
Shearstress-shear rate



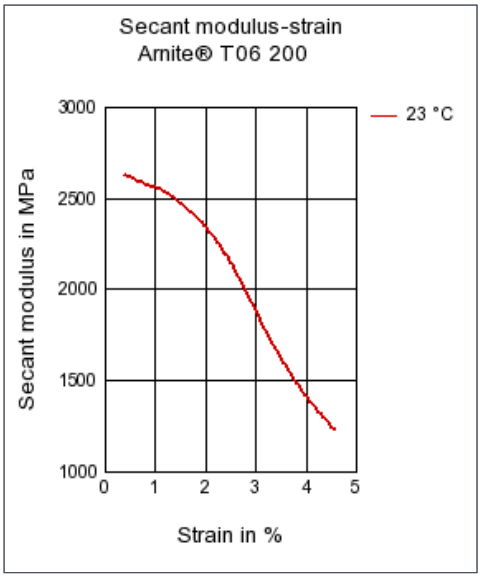
Dynamic Shear modulus-temperature



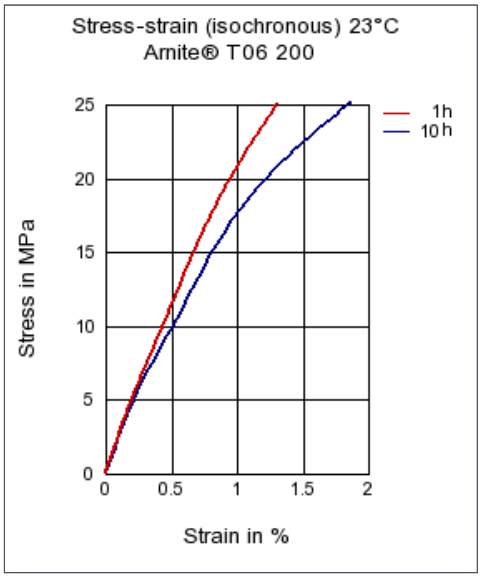
Stress-strain



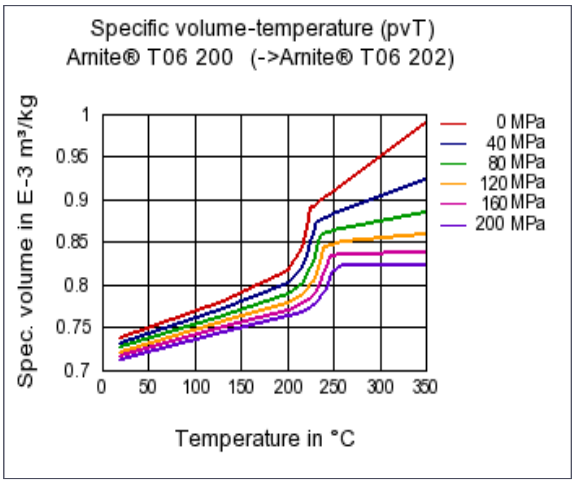
Secant modulus-strain



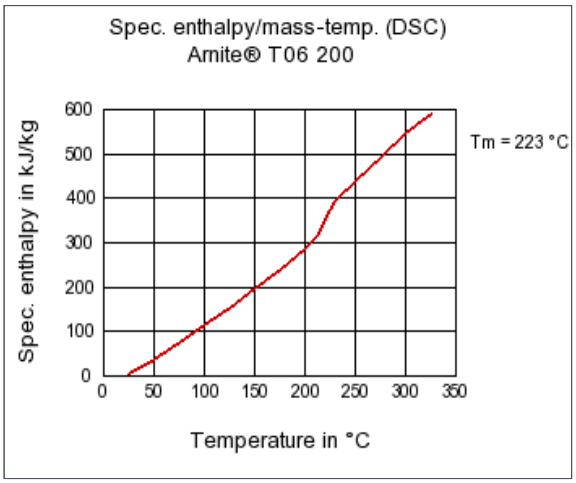
Stress-strain (isochronous) 23°C



Specific volume-temperature (pvT)



Spec. enthalpy/mass-temp. (DSC)



Characteristics

Processing
Injection Molding, Film Extrusion, Other Extrusion

Delivery form
Pellets

Other text information

Injection Molding

Injection Molding Recommendations
Steel recommendations for molds screws and barrels
Supporting document for Stanyl quality processing

Film extrusion

Extrusion Guideline for Arnite® T-grades

Chemical Media Resistance

Alcohols

- Methanol (23°C)
- Ethanol (23°C)

Hydrocarbons

- Toluene (23°C)

Ethers

Diethyl ether (23 °C)

Other

Water (23 °C)