

Arnite® TV4 240						
PBT-GF20	DSM Engineering Plastics					
Product Texts						
20% Glass Reinforced						
ISO 1043 PBT-GF20						
Arnite website						
Rheological properties	Value	Unit	Test Standard			
ISO Data						
Melt volume-flow rate, MVR	23	cm ³ /10min	ISO 1133			
Temperature	250	°C	ISO 1133			
Load	2.16	kg	ISO 1133			
Mechanical properties	Value	Unit	Test Standard			
ISO Data						
Tensile Modulus	7500	MPa	ISO 527-1/-2			
Stress at break	120	MPa	ISO 527-1/-2			
Strain at break	3	%	ISO 527-1/-2			
Charpy impact strength (+23°C)	45	kJ/m ²	ISO 179/1eU			
Charpy impact strength, -30°C	45	kJ/m ²	ISO 179/1eU			
Charpy notched impact strength (+23°C)	7	kJ/m ²	ISO 179/1eA			
Charpy notched impact strength, -30°C	7	kJ/m ²	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)	205	°C	ISO 75-1/-2			
Temp. of deflection under load (0.45 MPa)	220	°C	ISO 75-1/-2			
Coeff. of linear therm. expansion, parallel	40	E-6/K	ISO 11359-1/-2			
Coeff. of linear therm. expansion, normal	80	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			
UL recognition	UL	-	-			
Burning behav. at thickness h	HB	class	IEC 60695-11-10			
Thickness tested	0.8	mm	IEC 60695-11-10			
UL recognition	UL	-	-			
Oxygen index	20	%	ISO 4589-1/-2			
Electrical properties	Value	Unit	Test Standard			
ISO Data						
Relative permittivity, 100Hz	3.7	-	IEC 60250			
Relative permittivity, 1MHz	3.5	-	IEC 60250			
Dissipation factor, 100Hz	20	E-4	IEC 60250			
Dissipation factor, 1MHz	180	E-4	IEC 60250			
Volume resistivity	>1E13	Ohm*m	IEC 60093			
Electric strength	30	kV/mm	IEC 60243-1			
Comparative tracking index	400	-	IEC 60112			
Other properties	Value	Unit	Test Standard			
ISO Data						
Water absorption	0.3	%	Sim. to ISO 62			
Humidity absorption	0.15	%	Sim. to ISO 62			
Density	1450	kg/m ³	ISO 1183			

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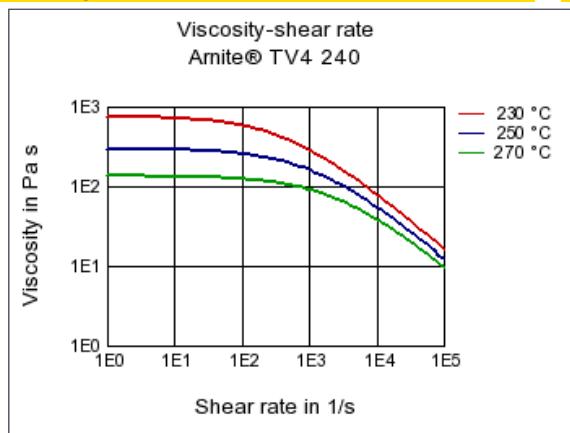
PBT-GF20

DSM Engineering Plastics

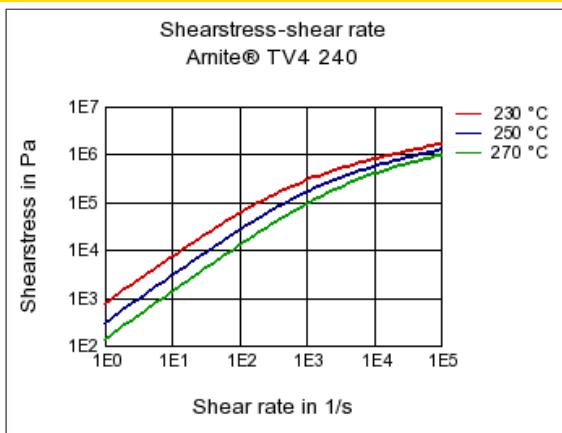
Rheological calculation properties	Value	Unit	Test Standard
ISO Data			
Density of melt	1220	kg/m ³	-
Thermal conductivity of melt	0.25	W/(m K)	-
Spec. heat capacity of melt	1850	J/(kg K)	-
Eff. thermal diffusivity	1.11E-7	m ² /s	-

Diagrams

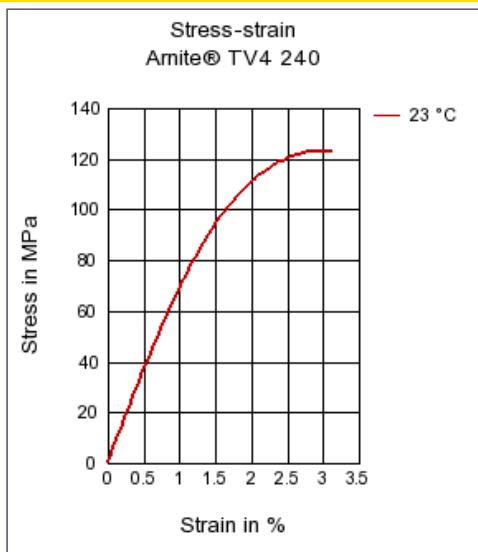
Viscosity-shear rate



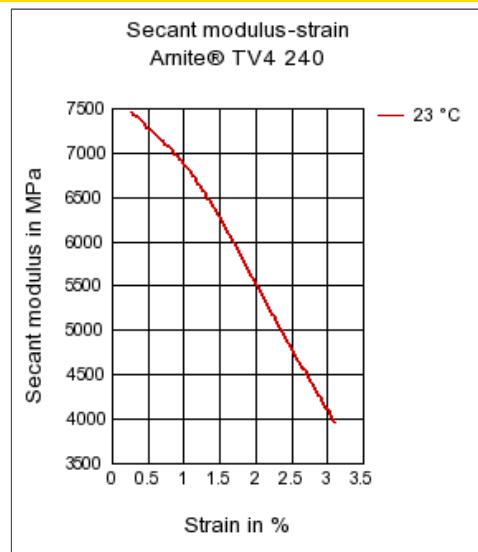
Shearstress-shear rate



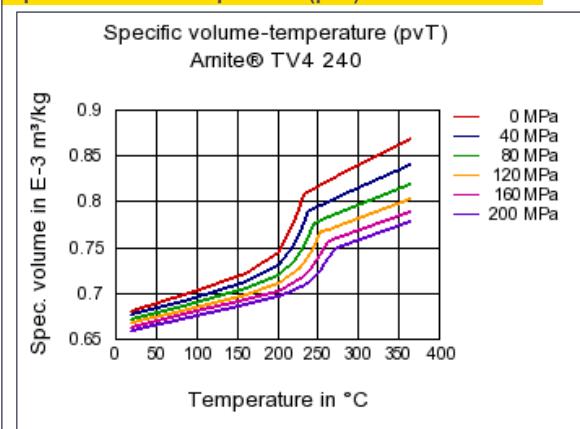
Stress-strain



Secant modulus-strain



Specific volume-temperature (pvT)



Characteristics

Processing

Injection Molding

Additives

Release agent

Delivery form

Pellets

Other text information

Injection Molding

[Injection Molding Recommendations](#)