

TECHNICAL DATA SHEET

Arnite® TV4 240

Envalior
PBT-GF20

Processing

Injection molding

Pellets

Additives

Release agent

Delivery Form

Product Text

Product Information

20% Glass Reinforced

ISO 1043 PBT-GF20

Processing/Physical Characteristics	Value	Unit	Standard
Melt volume-flow rate, MVR	23	cm ³ /10min	ISO 1133
Temperature	250	°C	
Load	2.16	kg	
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	
Mechanical Properties	Value	Unit	Standard
Tensile modulus	7200	MPa	ISO 527
Stress at break	120	MPa	ISO 527
Strain at break	3	%	ISO 527
Poisson's ratio	0.35		ISO 527
Charpy impact strength, +23°C	35	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	35	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

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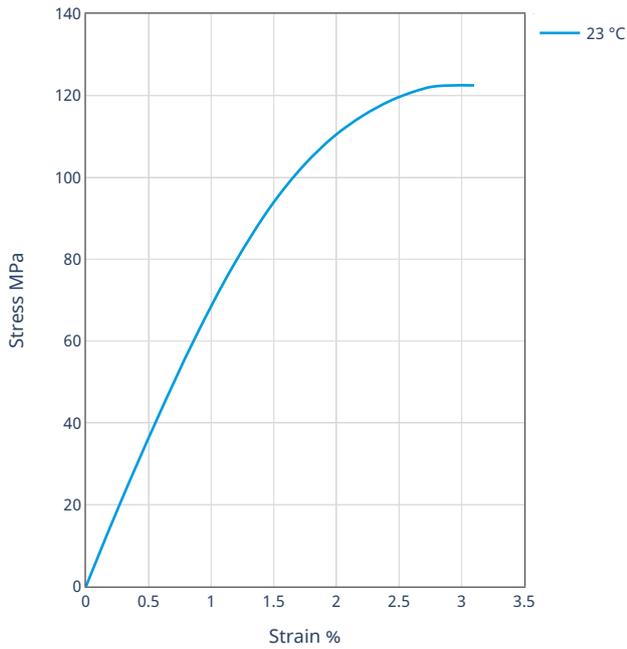
Thermal Properties	Value	Unit	Standard
Melting temperature, 10°C/min	225	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.80 MPa	205	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	220	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	40	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. 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	
Yellow card available	yes		
Burning behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	3	mm	
Yellow card available	yes		
Oxygen index	20	%	ISO 4589-1/-2
Electrical Properties	Value	Unit	Standard
Relative permittivity, 100Hz	3.7		IEC 62631-2-1
Relative permittivity, 1MHz	3.5		IEC 62631-2-1
Dissipation factor, 100Hz	20	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	180	E-4	IEC 62631-2-1
Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
Electric strength	30	kV/mm	IEC 60243-1
Comparative tracking index	400		IEC 60112
Other Properties	Value	Unit	Standard
Water absorption	0.3	%	Sim. to ISO 62
Humidity absorption	0.15	%	Sim. to ISO 62
Density	1450	kg/m ³	ISO 1183

Diagrams

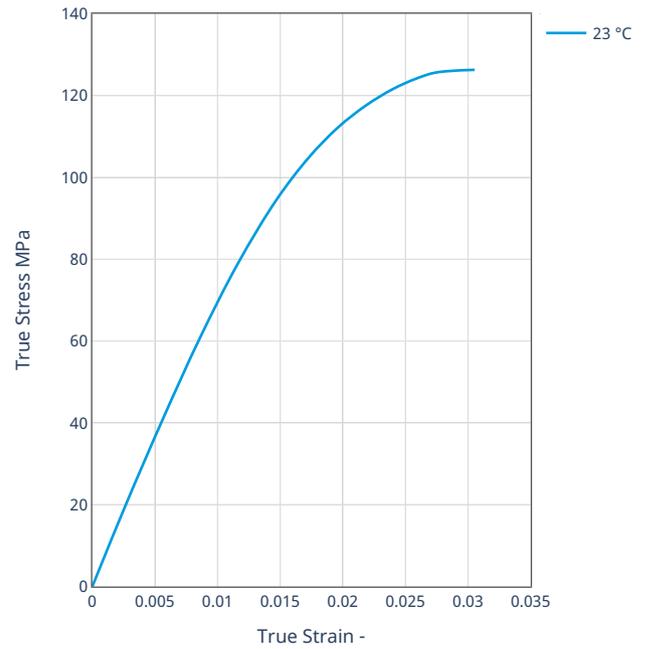
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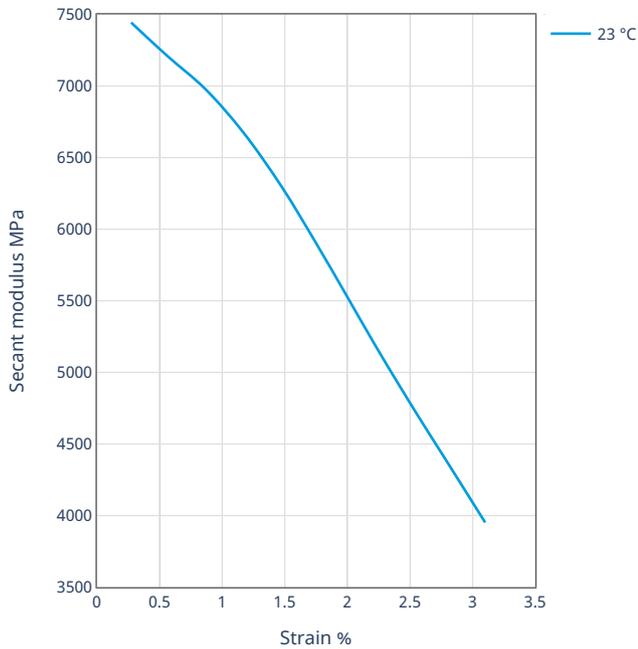
Stress-strain



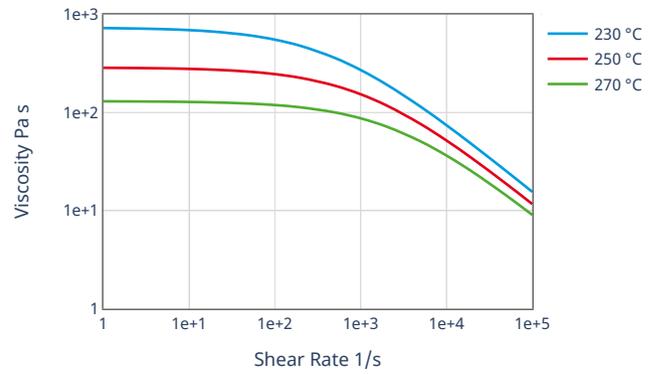
True stress-true strain



Secant modulus-strain



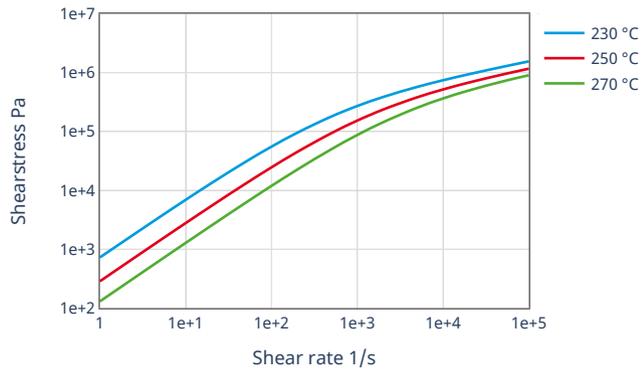
Viscosity-shear rate



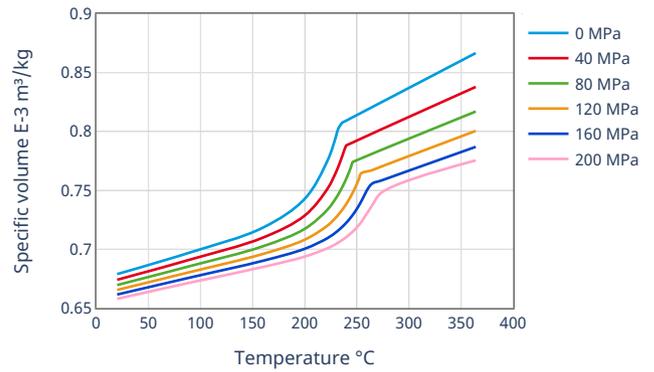
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Shearstress-shear rate



Spec. volume-Temperature (pVT)



Processing Information

Injection molding

Injection Molding Recommendations

Steel recommendations for molds screws and barrels

Supporting document for Stanyl quality processing