

TECHNICAL DATA SHEET

Arnite® AV2 360 S

Envalior
PET-GF33 FR(17)

Processing

Injection molding

Delivery Form

Pellets

Additives

Release agent

Special Characteristics

Flame retardant

Product Text

Product Information

33% Glass Reinforced, Flame Retardant

ISO 1043 PET-GF33 FR(17)

Processing/Physical Characteristics	Value	Unit	Standard
Molding shrinkage, parallel	0.5	%	ISO 294-4, 2577
Molding shrinkage, normal	1	%	ISO 294-4, 2577
Density of melt	1350	kg/m ³	
Thermal conductivity of melt	0.195	W/(m K)	
Spec. heat capacity of melt	1670	J/(kg K)	
Eff. thermal diffusivity	8.67E-8	m ² /s	

Mechanical Properties	Value	Unit	Standard
Tensile modulus	13000	MPa	ISO 527
Stress at break	160	MPa	ISO 527
Strain at break	2	%	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	8	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	8	kJ/m ²	ISO 179/1eA

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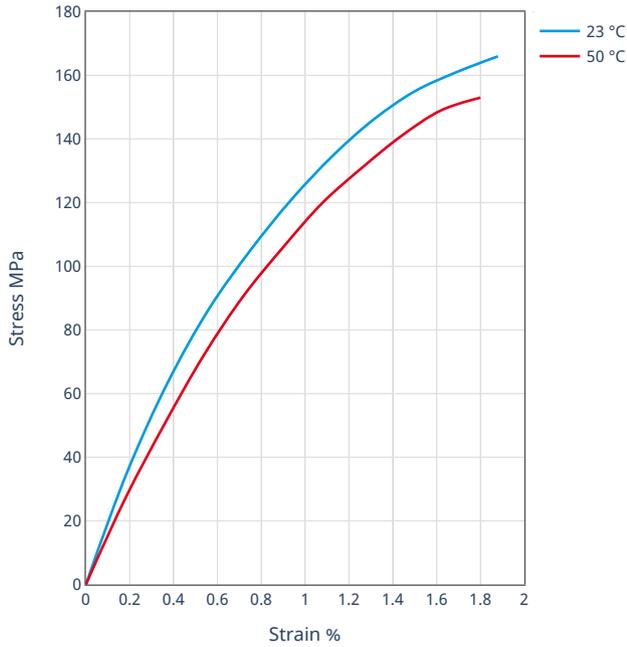
Thermal Properties	Value	Unit	Standard
Melting temperature, 10°C/min	255	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.80 MPa	220	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	240	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	20	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	65	E-6/K	ISO 11359-1/-2
Burning behav. at 1.5 mm nom. thickn.	V-0	class	IEC 60695-11-10
Thickness tested	1.5	mm	
Yellow card available	yes		
Burning behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	3	mm	
Yellow card available	yes		
Oxygen index	36	%	ISO 4589-1/-2
Electrical Properties	Value	Unit	Standard
Relative permittivity, 100Hz	3.7		IEC 62631-2-1
Relative permittivity, 1MHz	3.4		IEC 62631-2-1
Dissipation factor, 100Hz	10	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	120	E-4	IEC 62631-2-1
Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
Electric strength	29	kV/mm	IEC 60243-1
Comparative tracking index	225		IEC 60112
Other Properties	Value	Unit	Standard
Water absorption	0.4	%	Sim. to ISO 62
Humidity absorption	0.12	%	Sim. to ISO 62
Density	1730	kg/m ³	ISO 1183

Diagrams

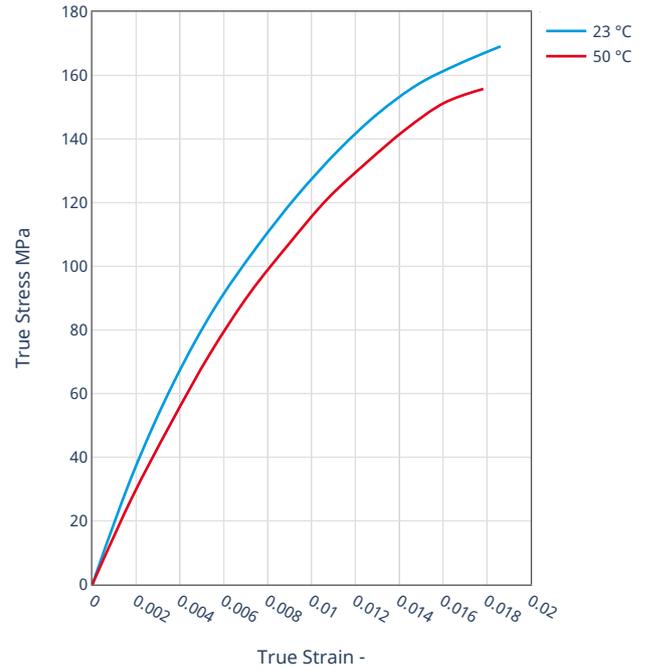
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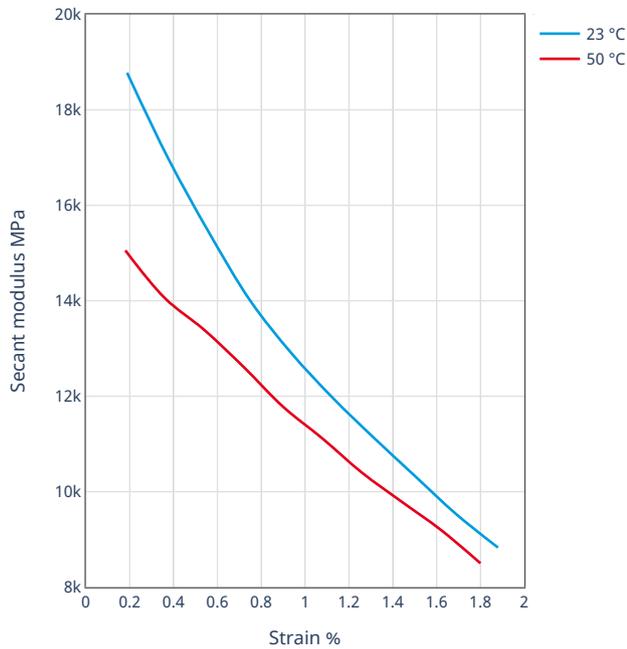
Stress-strain



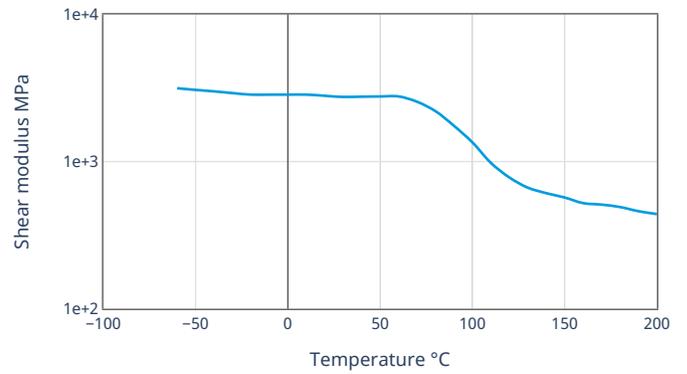
True stress-true strain



Secant modulus-strain



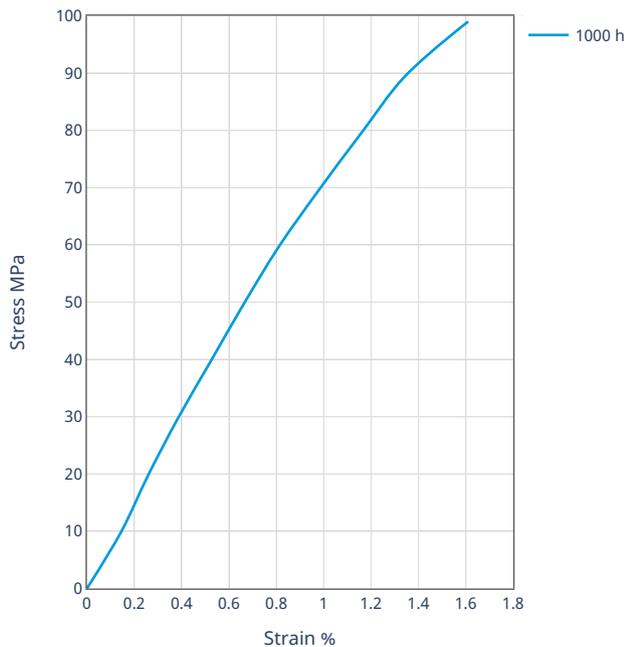
Dynamic shear modulus-temperature



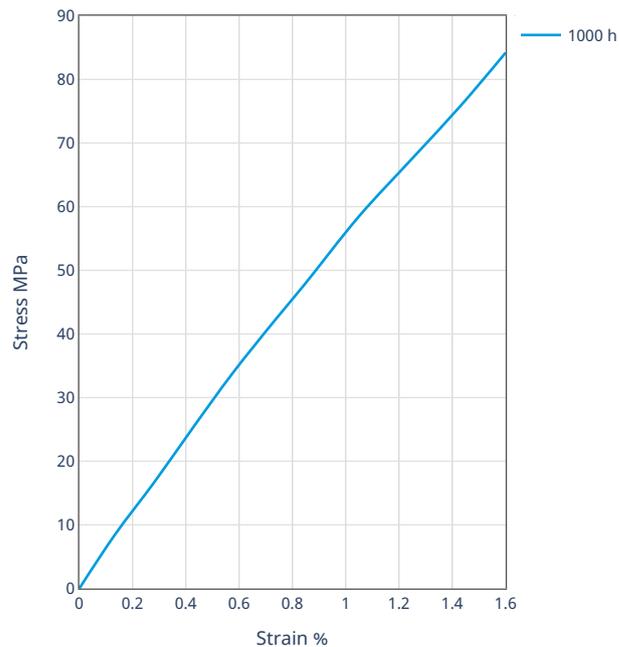
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Stress-strain (isochronous) 23°C



Stress-strain (isochronous) 40°C



Processing Information

Injection molding

Injection Molding Recommendations

Steel recommendations for molds screws and barrels

Supporting document for Stanyl quality processing