

TECHNICAL DATA SHEET

Stanyl® TW200B6

Envalior
PA46-CF30

Processing

Injection molding

Additives

Lubricants

Special Characteristics

Heat stabilized or stable to heat

Product Text

Product Information

30% Carbon Reinforced, Heat Stabilized, Lubricated

ISO 1043 PA46-CF30

Stanyl® TW200B6 is a high heat polyamide that offers excellent creep resistance, strength, stiffness and fatigue resistance especially at high temperatures in combination with cycle-time advantages and excellent flow. TW200B6 has an excellent track-record in gear applications.

Processing/Physical Characteristics	Value	Unit	Standard
Molding shrinkage, parallel	0.2	%	ISO 294-4, 2577
Molding shrinkage, normal	0.9	%	ISO 294-4, 2577
Mechanical Properties	Value	Unit	Standard
Tensile modulus	23500	MPa	ISO 527
Stress at break	250	MPa	ISO 527
Strain at break	1.7	%	ISO 527
Poisson's ratio	0.35		ISO 527
Charpy impact strength, +23°C	60	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	50	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	6.5	kJ/m ²	ISO 179/1eA
Thermal Properties	Value	Unit	Standard
Melting temperature, 10°C/min	295	°C	ISO 11357-1/-3

Stanyl® TW200B6

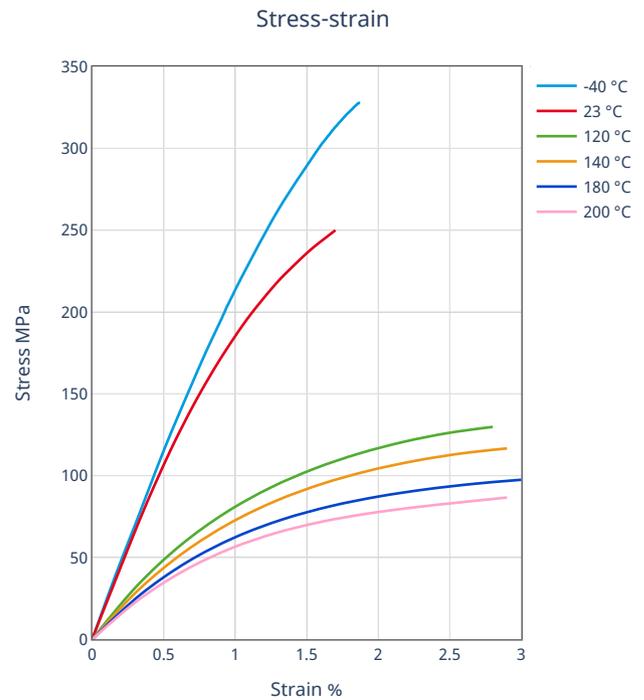
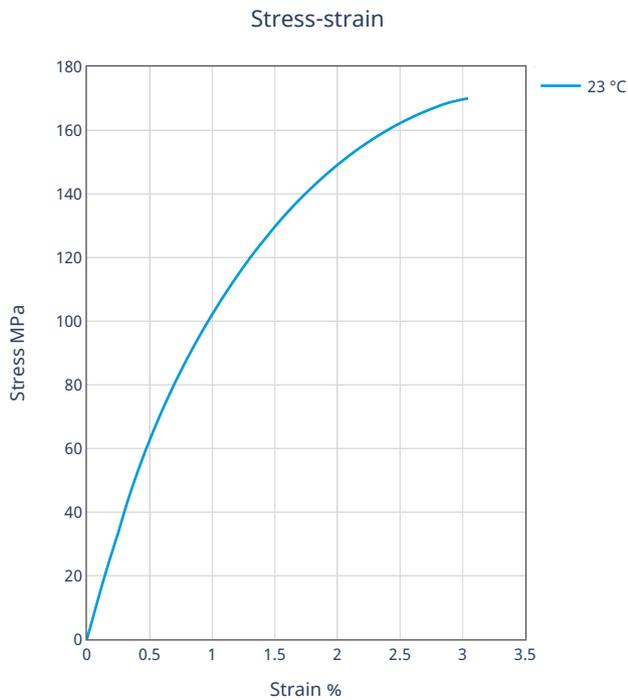
Envalior

Thermal Properties	Value	Unit	Standard
Glass transition temperature, 10°C/min	75	°C	ISO 11357-1/-2
Temp. of deflection under load, 1.80 MPa	290	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	8	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	34	E-6/K	ISO 11359-1/-2

Electrical Properties	Value	Unit	Standard
Volume resistivity	10000	Ohm*m	IEC 62631-3-1

Other Properties	Value	Unit	Standard
Water absorption	9.5	%	Sim. to ISO 62
Humidity absorption	2.6	%	Sim. to ISO 62
Density	1290	kg/m ³	ISO 1183

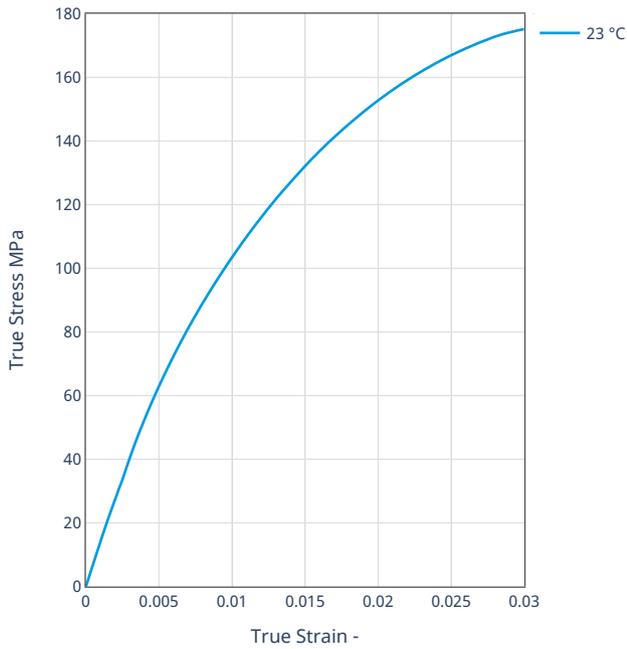
Diagrams



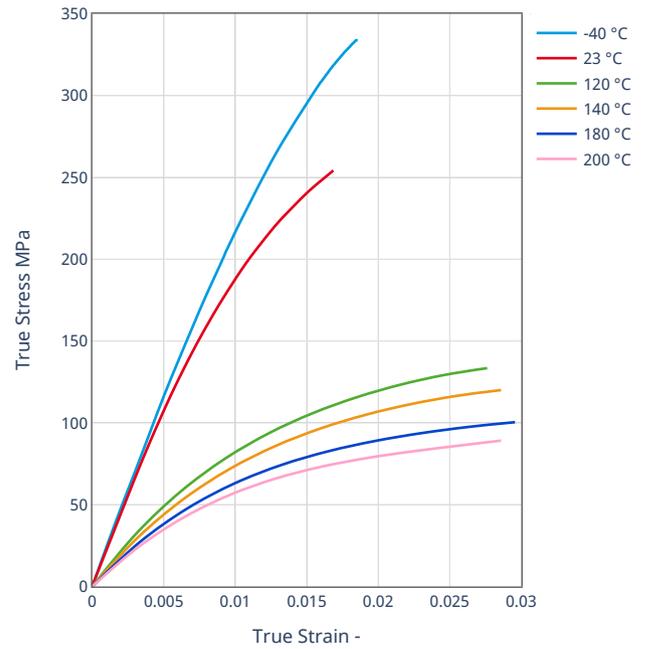
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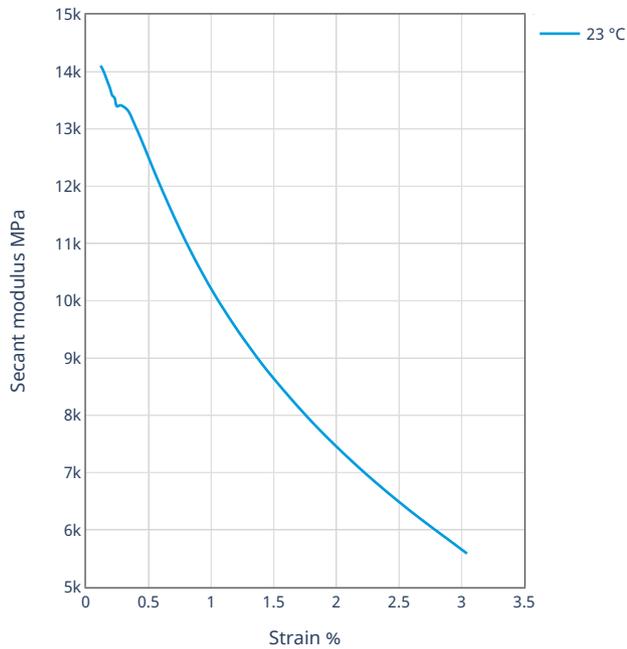
True stress-true strain



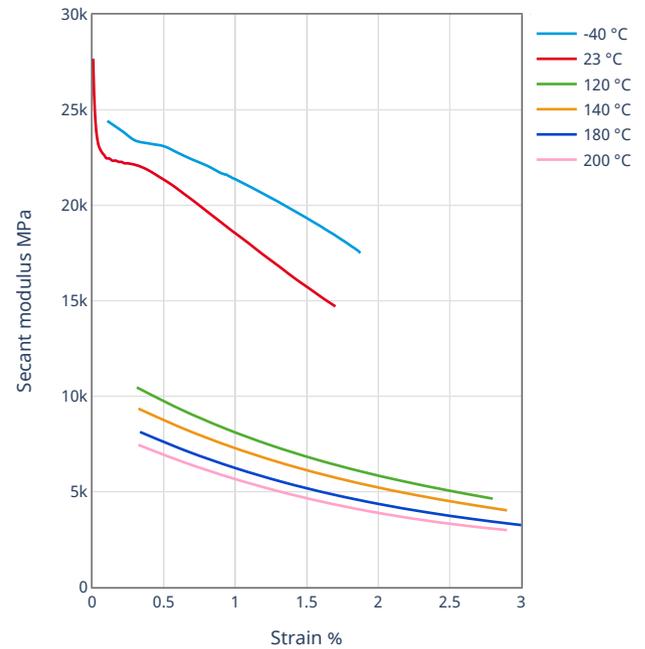
True stress-true strain



Secant modulus-strain



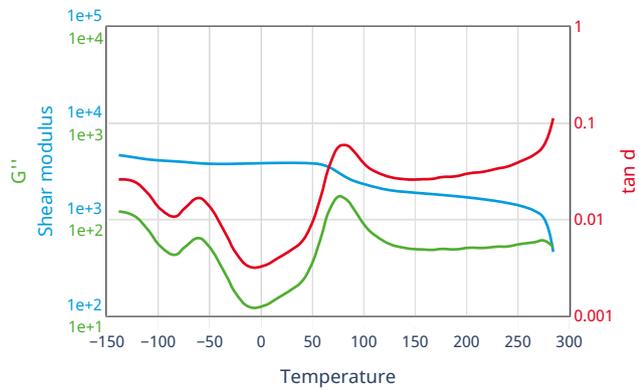
Secant modulus-strain



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Dynamic shear modulus-temperature



Processing 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