

Regional availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa, India

Processing

Injection Molding

Delivery form

Granules

Additives

Without fillers

Special Characteristics

Heat stabilised or stable to heat

Product Text

CYCOLAC G360 is a high flow, high impact, medium to high heat resistant injection moulding ABS grade. It is recommended for large or complex parts in the automotive or electrical power tool segments where the high flow properties of CYCOLAC G360 can be used to advantage.

Single-point data**Rheological properties**

Melt volume-flow rate	8	cm ³ /10min	ISO 1133
Temperature	220	°C	ISO 1133
Load	10	kg	ISO 1133
Molding shrinkage (parallel)	*	%	ISO 2577
Molding shrinkage (normal)	*	%	ISO 2577

Mechanical properties

Tensile modulus	2500	MPa	ISO 527-1/-2
Yield stress	55	MPa	ISO 527-1/-2
Yield strain	3	%	ISO 527-1/-2
Nominal strain at break	5	%	ISO 527-1/-2
Stress at 50% strain	*	MPa	ISO 527-1/-2
Stress at break	*	MPa	ISO 527-1/-2
Strain at break	*	%	ISO 899-1
Tensile creep modulus (1h)	-	MPa	ISO 899-1
Tensile creep modulus (1000h)	-	MPa	ISO 899-1
Charpy impact strength (+23°C)	-	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	-	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	18	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	8	kJ/m ²	ISO 179/1eA
Tensile notched impact strength (+23°C)	-	kJ/m ²	ISO 8256/1
Puncture - maximum force (+23°C)	-	N	ISO 6603-2
Puncture - maximum force (-30°C)	-	N	ISO 6603-2
Puncture energy (+23°C)	-	J	ISO 6603-2
Puncture energy (-30°C)	-	J	ISO 6603-2

Thermal properties

Melting temperature (10°C/min)	-	°C	ISO 11357-1/-3
Glass transition temperature (10°C/min)	-	°C	ISO 11357-1/-2
Temp. of deflection under load (1.80 MPa)	85	°C	ISO 75-1/-2

Temp. of deflection under load (0.45 MPa)	97	°C	ISO 75-1/-2
Temp. of deflection under load (8.00 MPa)	-	°C	ISO 75-1/-2
Vicat softening temperature (50°C/h 50N)	104	°C	ISO 306
Coeff.of linear therm. expansion (parallel)	0.8	E-4/°C	ISO 11359-1/-2
Coeff.of linear therm. expansion (normal)	0.8	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.6mm 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	-	class	IEC 60695-11-10
Thickness tested	-	mm	IEC 60695-11-10
UL recognition	-	-	-
Burning Behav. 5V at thickn. h	-	class	IEC 60695-11-20
Thickness tested	-	mm	IEC 60695-11-20
UL recognition	-	-	-
Oxygen index	20	%	ISO 4589-1/-2

Electrical properties

Relative permittivity (100Hz)	-	-	IEC 60250
Relative permittivity (1 MHz)	2.7	-	IEC 60250
Dissipation factor (100Hz)	-	E-4	IEC 60250
Dissipation factor (1 MHz)	140	E-4	IEC 60250
Volume resistivity	>1E13	Ohm*m	IEC 60093
Surface resistivity	>1E15	Ohm	IEC 60093
Electric strength	35	kV/mm	IEC 60243-1
Comparative tracking index	550	-	IEC 60112

Other properties

Water absorption	1	%	Similar to ISO 62
Humidity absorption	0.2	%	Similar to ISO 62
Density	1060	kg/m ³	ISO 1183

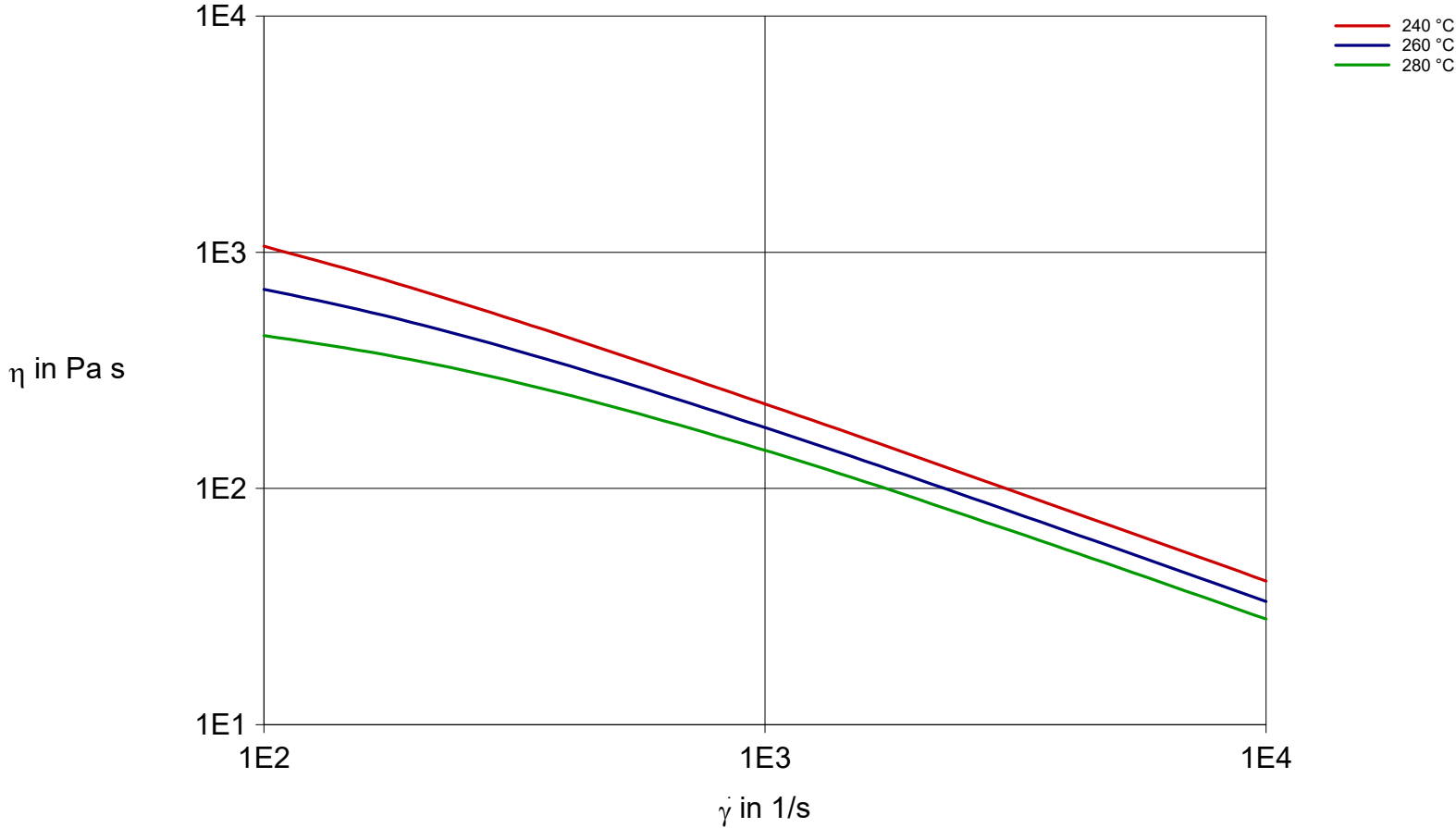
Material specific properties

Viscosity number	*	cm ³ /g	ISO 307, 1157, 1628
Indicative density (PE only)	*	kg/m ³	ISO 1872-1

Test specimen production

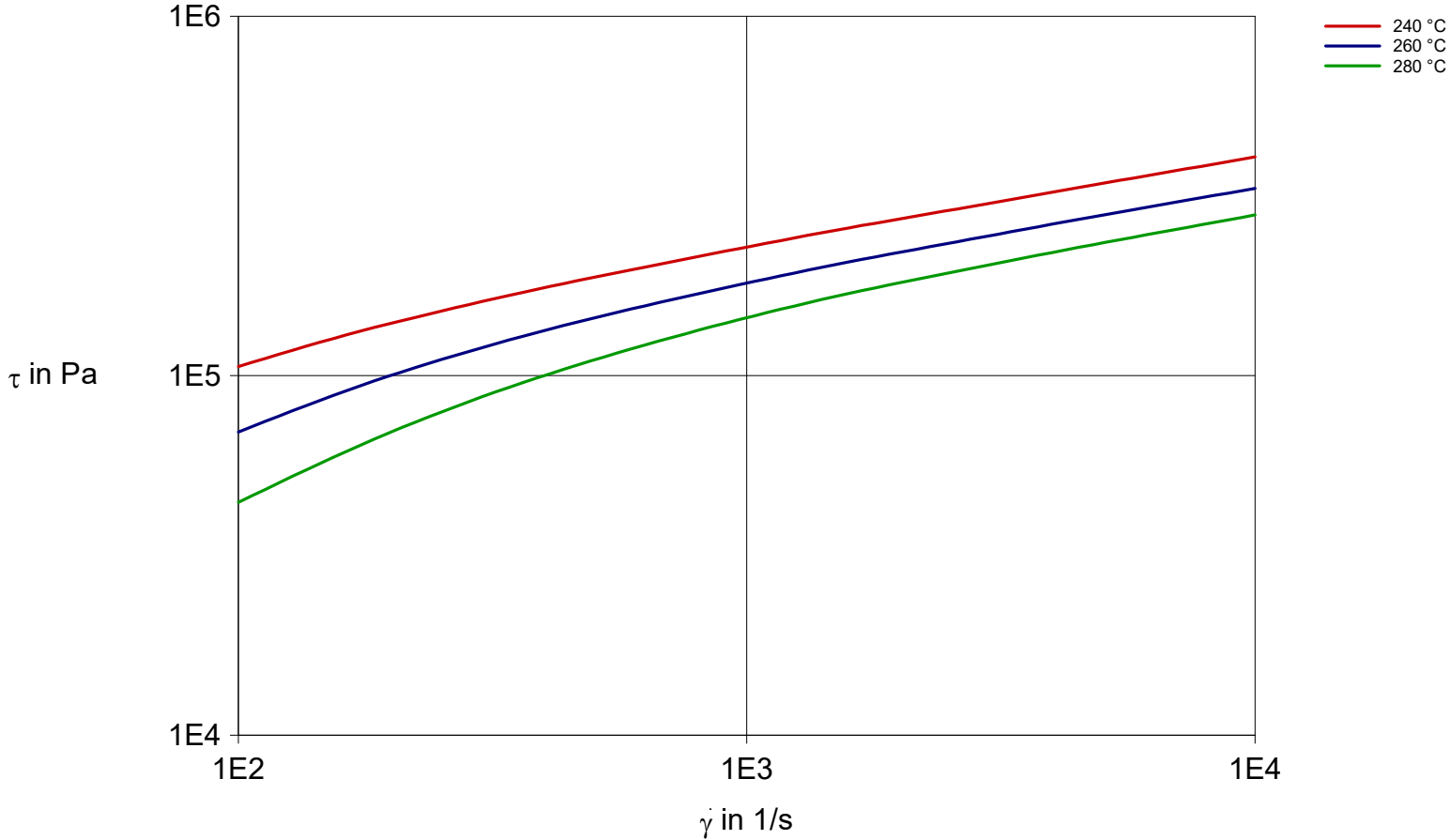
Processing conditions acc. ISO	-	-	ISO....-2
Injection Molding, melt temperature	265	°C	ISO 294
mold temperature	60	°C	ISO 10724
injection velocity	-	mm/s	ISO 294
pressure at hold	*	MPa	ISO 294
Compression Molding, molding temperature	-	°C	ISO 293
cooling rate	*	K/min	ISO 293
molding time	*	min	ISO 293
demolding temperature	*	°C	ISO 293

Viscosity-shear rate
CYCOLAC G360



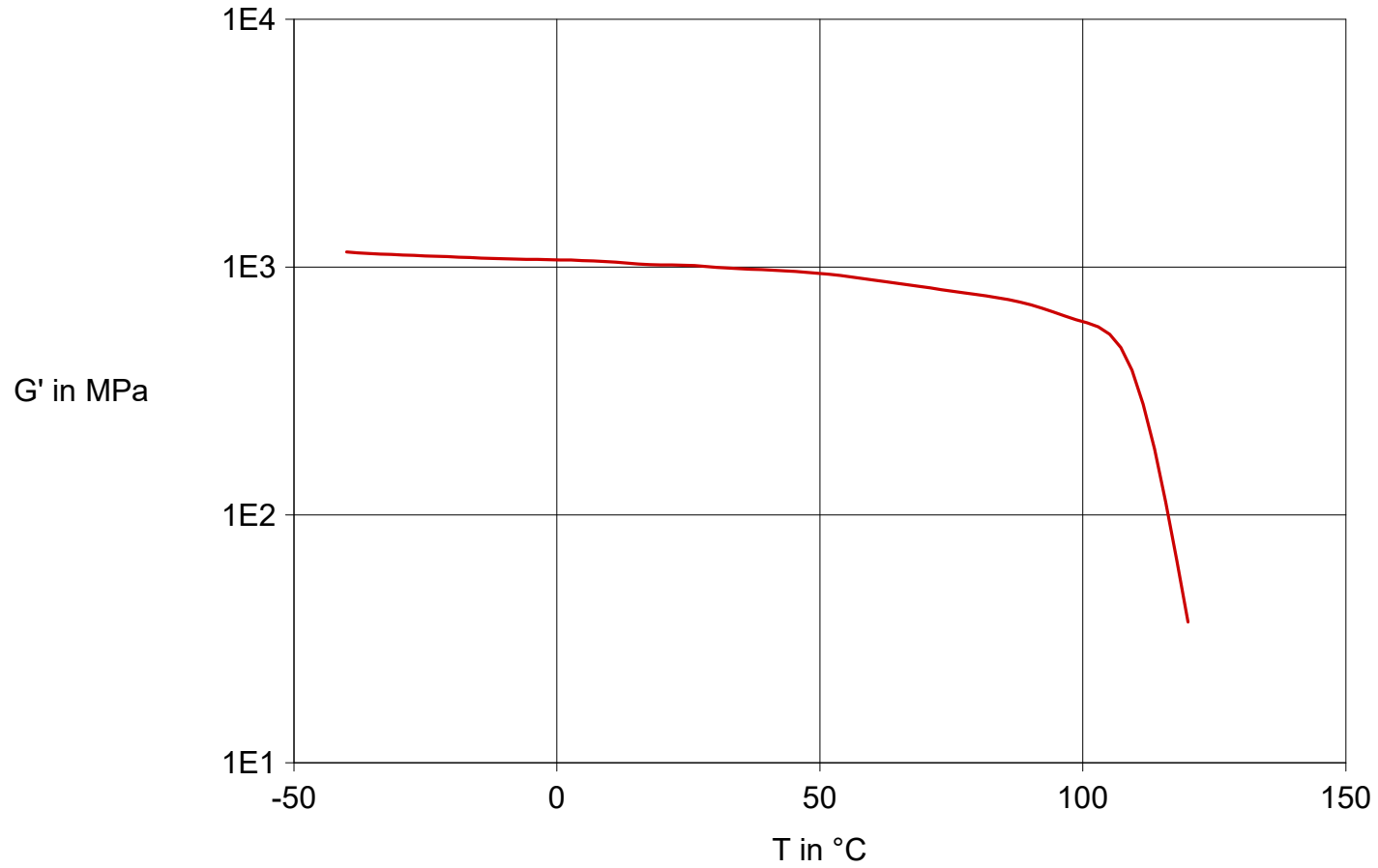
Note: The program stores curve points. The diagram shows approximations.

Shearstress-shear rate CYCOLAC G360

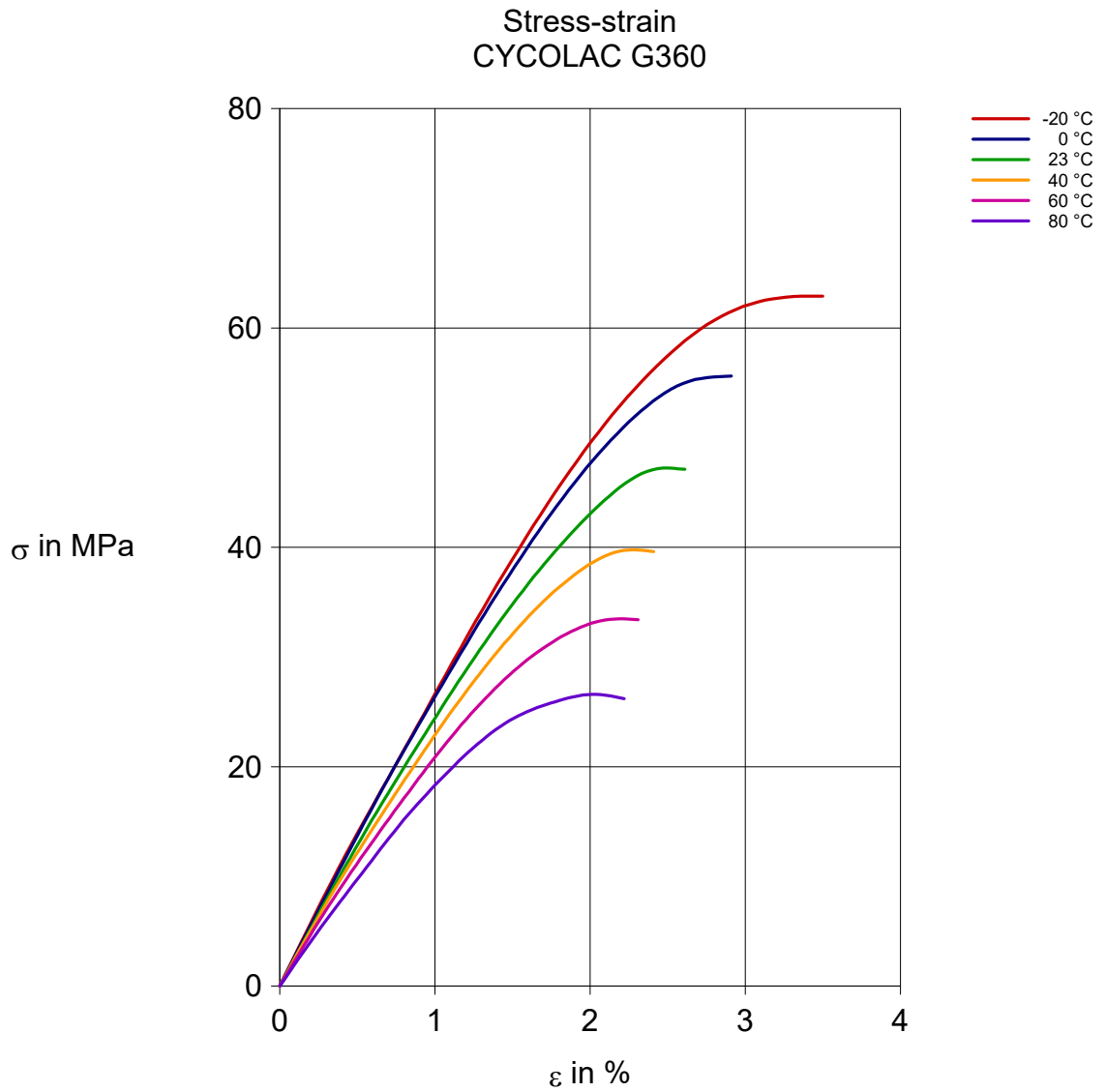


Note: The program stores curve points. The diagram shows approximations.

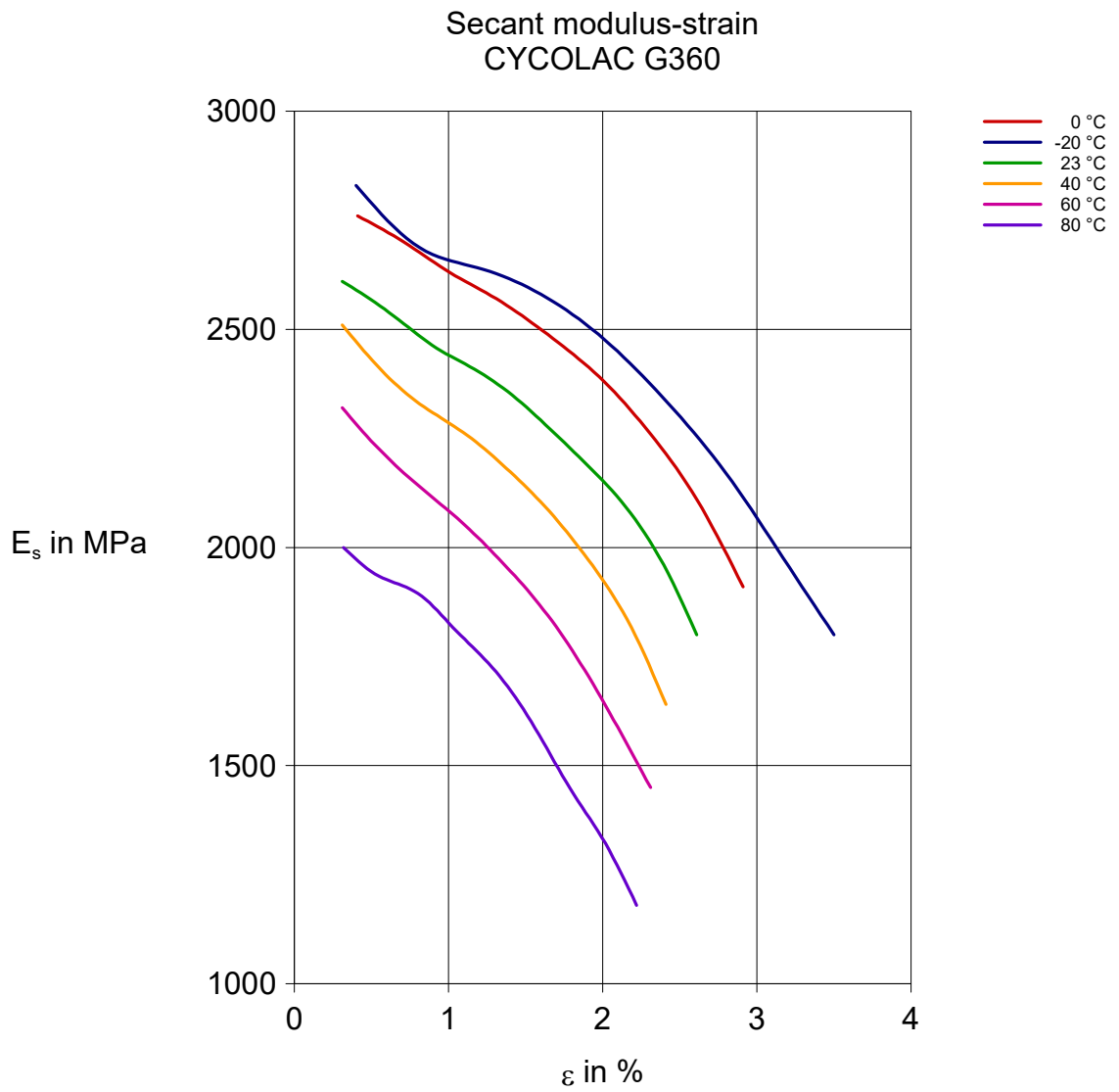
Dynamic Shear modulus-temperature
CYCOLAC G360



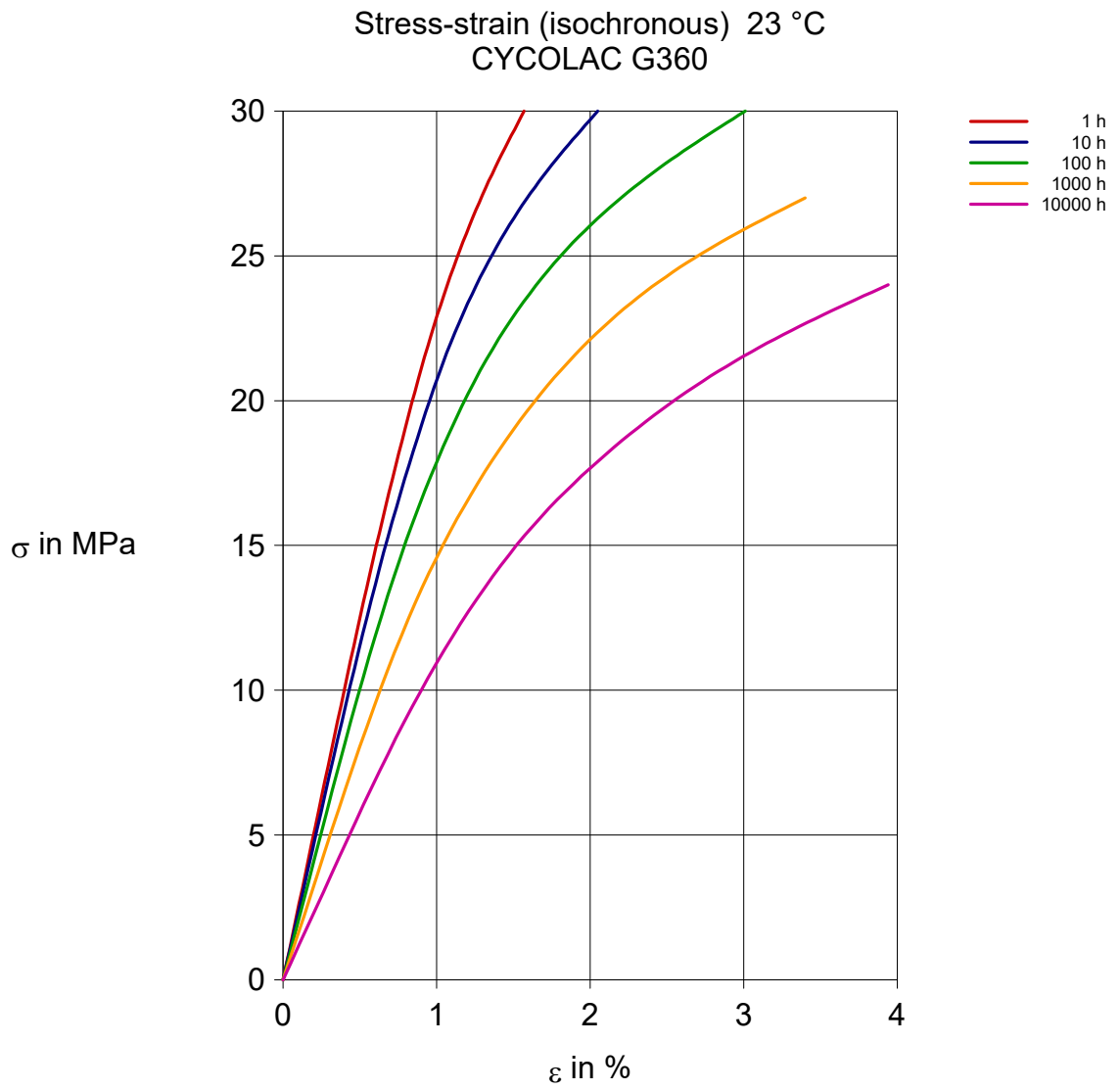
Note: The program stores curve points. The diagram shows approximations.



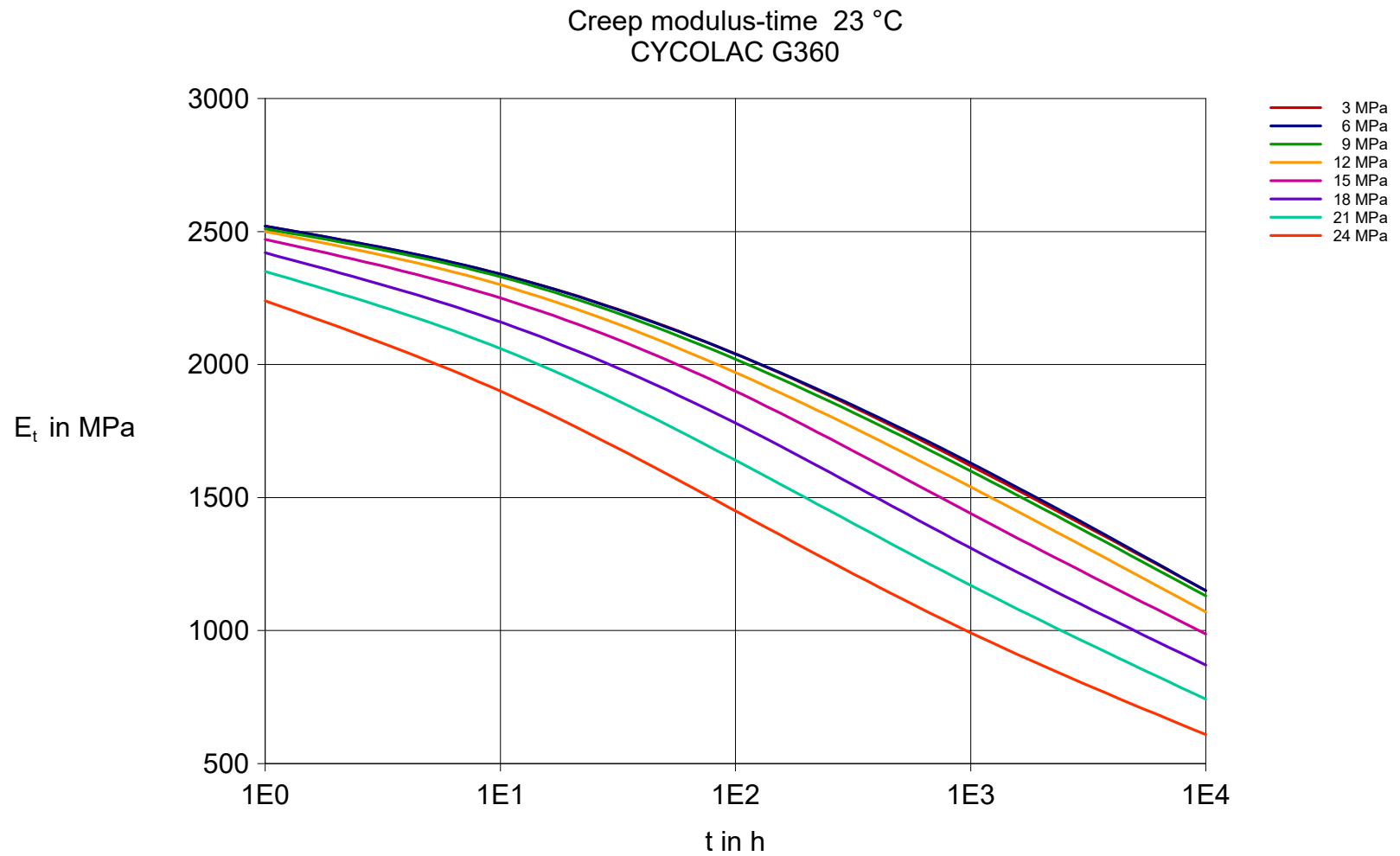
Note: The program stores curve points. The diagram shows approximations.



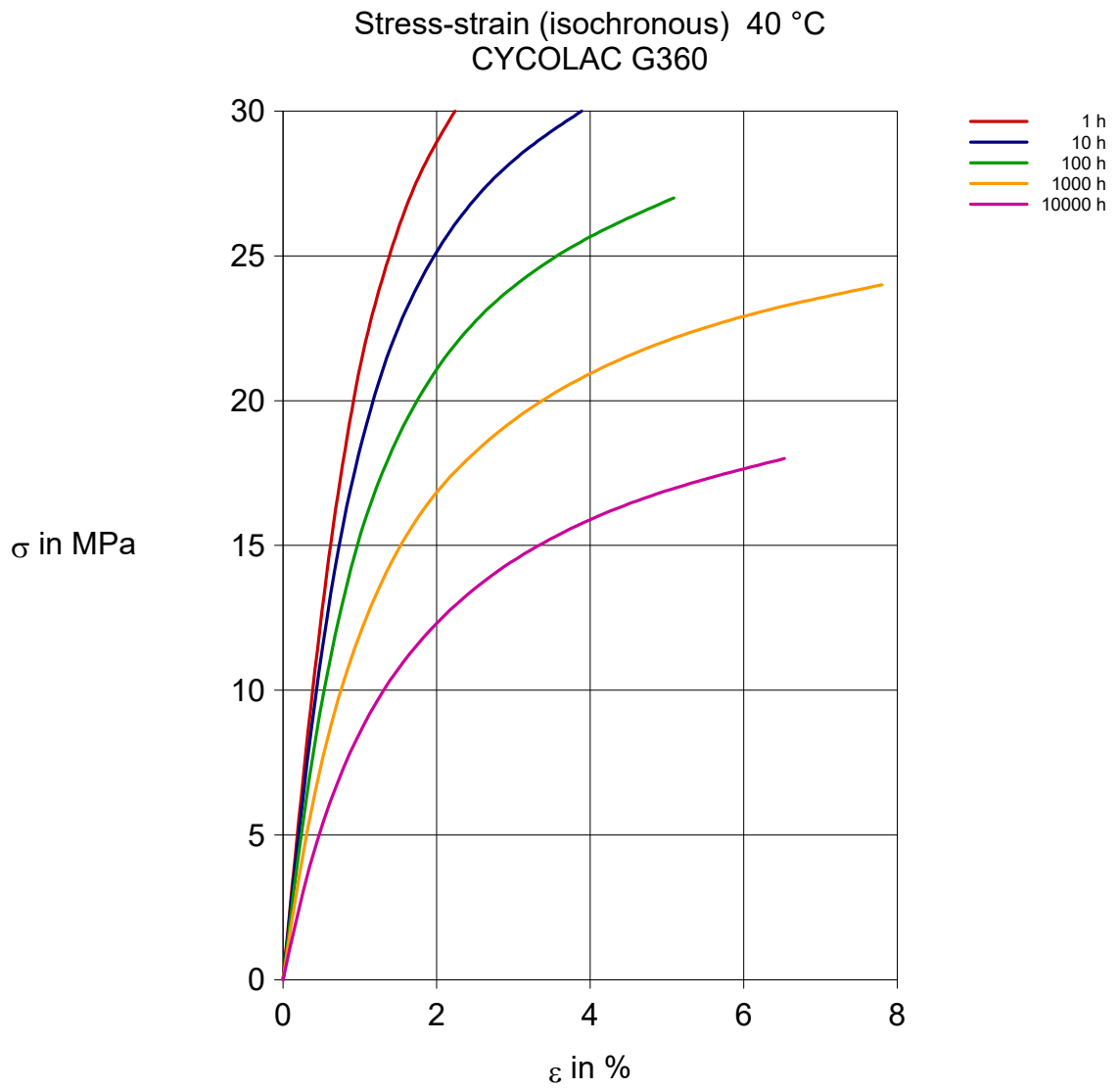
Note: The program stores curve points. The diagram shows approximations.



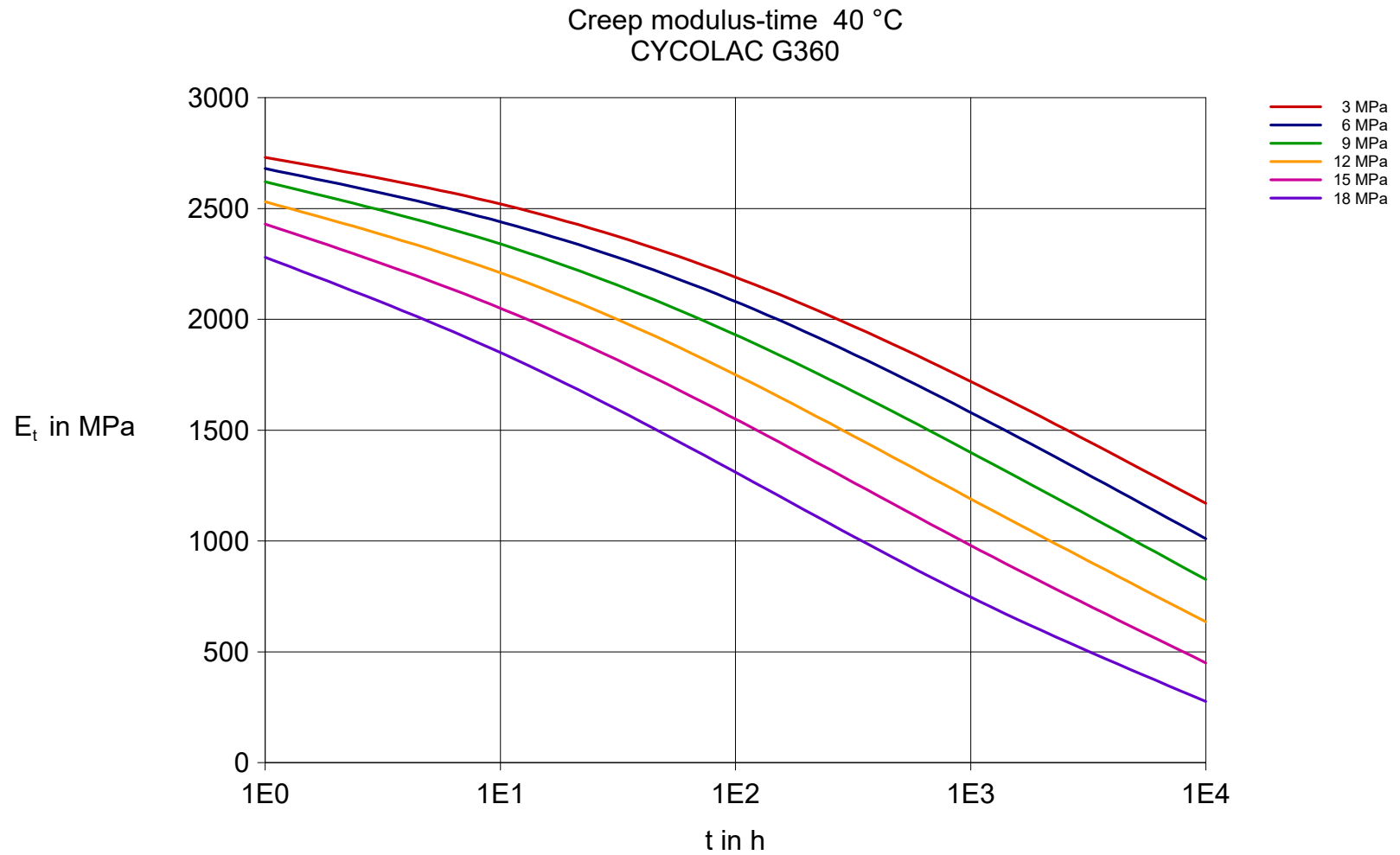
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Other Text Information

Processing Text - Injection molding

PREPROCESSING

Predrying Conditions

Temperature : 90 - 100 °C
Time : 2-4h
Max. water content : 0.1%

PROCESSING

Cylinder Temperature

Hopper : 60 - 80 °C
Rear zone : 230 - 260 °C
Middle zone : 250 - 280 °C
Front zone : 250 - 280 °C
Nozzle : 245 - 275 °C
Melt temperature : 250 - 280 °C
Mould temperature : 40 - 80 °C

All data is subject to the producer's disclaimer.

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