

# HOSTAFORM® C 9021 XAP®

## HOSTAFORM®

POM copolymer injection molding grade with medium flow and reduced emissions especially for automotive interior application. Good properties as high rigidity, hardness and toughness; good chemical resistance to solvents, fuel and strong alkalis as well as good hydrolysis resistance; high resistance to thermal and oxidative degradation. Burning rate ISO 3795 and FMVSS 302 < 75 mm/min for a thickness more than 1 mm. VDA 275 Emissions < 10 ppm Ranges of applications: automotive engineering, FMVSS = Federal Motor Vehicle Safety Standard (USA)

### Product information

Resin Identification	POM	ISO 1043
Part Marking Code	>POM<	ISO 11469

### Rheological properties

Melt volume-flow rate	8 cm <sup>3</sup> /10min	ISO 1133
Temperature	190 °C	
Load	2.16 kg	
Moulding shrinkage, parallel	2.0 <sup>[1]</sup> %	ISO 294-4, 2577
Moulding shrinkage, normal	1.9 <sup>[1]</sup> %	ISO 294-4, 2577
[1]: @ 195 °C		

### Typical mechanical properties

Tensile modulus	2850 MPa	ISO 527-1/-2
Tensile stress at yield, 50mm/min	64 MPa	ISO 527-1/-2
Tensile strain at yield, 50mm/min	9 %	ISO 527-1/-2
Nominal strain at break	30 %	ISO 527-1/-2
Flexural modulus	2700 MPa	ISO 178
Flexural strength	89 MPa	ISO 178
Tensile creep modulus, 1h	2500 MPa	ISO 899-1
Tensile creep modulus, 1000h	1300 MPa	ISO 899-1
Charpy impact strength, 23 °C	220 <sup>[P]</sup> kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30 °C	220 kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, 23 °C	6.5 kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30 °C	6 kJ/m <sup>2</sup>	ISO 179/1eA
Ball indentation hardness, H 358/30	144 MPa	ISO 2039-1
Poisson's ratio	0.37 <sup>[C]</sup>	

[P]: Partial Break

[C]: Calculated

### Thermal properties

Melting temperature, 10 °C/min	166 °C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	104 °C	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	110 E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	110 E-6/K	ISO 11359-1/-2
Thermal conductivity of melt	0.155 W/(m K)	ISO 22007-2
Effective thermal diffusivity, flow	4.85E-8 m <sup>2</sup> /s	ISO 22007-4
Specific heat capacity of melt	2210 J/(kg K)	ISO 22007-4

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### Electrical properties

Relative permittivity, 100Hz	4	IEC 62631-2-1
Relative permittivity, 1MHz	4	IEC 62631-2-1
Dissipation factor, 100Hz	20 E-4	IEC 62631-2-1
Dissipation factor, 1MHz	50 E-4	IEC 62631-2-1
Volume resistivity	1E12 Ohm.m	IEC 62631-3-1
Surface resistivity	1E14 Ohm	IEC 62631-3-2
Electric strength	35 kV/mm	IEC 60243-1
Comparative tracking index	600	IEC 60112

### Physical/Other properties

Humidity absorption, 2mm	0.2 %	Sim. to ISO 62
Water absorption, 2mm	0.65 %	Sim. to ISO 62
Density	1410 kg/m³	ISO 1183

### Injection

Drying Recommended	no
Drying Temperature	100 °C
Drying Time, Dehumidified Dryer	3 - 4 h
Processing Moisture Content	≤0.2 %
Melt Temperature Optimum	200 °C
Min. melt temperature	190 °C
Max. melt temperature	210 °C
Screw tangential speed	≤0.3 m/s
Mold Temperature Optimum	100 °C
Min. mould temperature	80 °C
Max. mould temperature	120 °C
Hold pressure range	60 - 120 MPa
Back pressure	4 MPa
Ejection temperature	140 °C

### Characteristics

Processing	Injection Moulding
Delivery form	Pellets
Additives	Release agent
Special characteristics	Low emissions

### Additional information

Injection molding

### Preprocessing

To achieve low emission values pre drying using a recirculating air dryer (100 to 120 °C / max. 40 mm layer / 3 to 6 hours) is recommended.

Max. Water content 0,1 %

### Processing

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Standard injection moulding machines with three phase (15 to 25 D) plasticating screws will fit.

### Postprocessing

Conditioning e.g. moisturizing is not necessary.

### Processing Notes

### Pre-Drying

It is normally not necessary to dry HOSTAFORM. However, should there be surface moisture (condensate) on the molding compound as a result of incorrect storage, drying is required. A circulating air drying cabinet can be used for this purpose if the granul

### Storage

The product can then be stored in standard conditions until processed.

### Automotive

#### OEM

General Motors

General Motors

#### STANDARD

GMW22P-POM-C2

GMW22P-POM-C2

#### ADDITIONAL INFORMATION

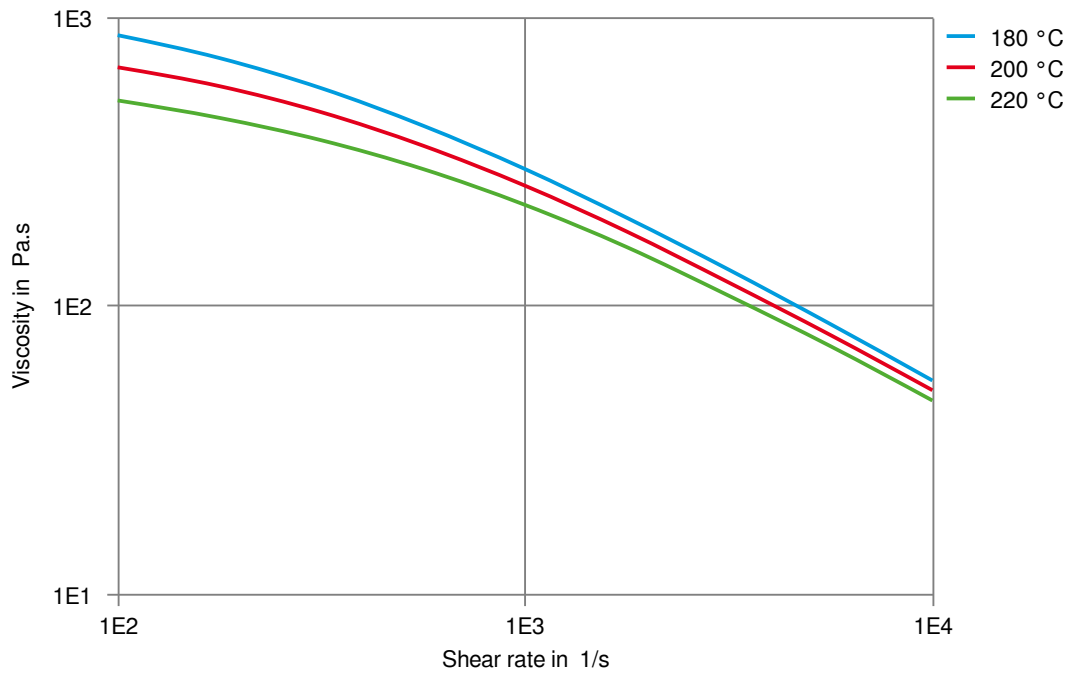
Black

Natural

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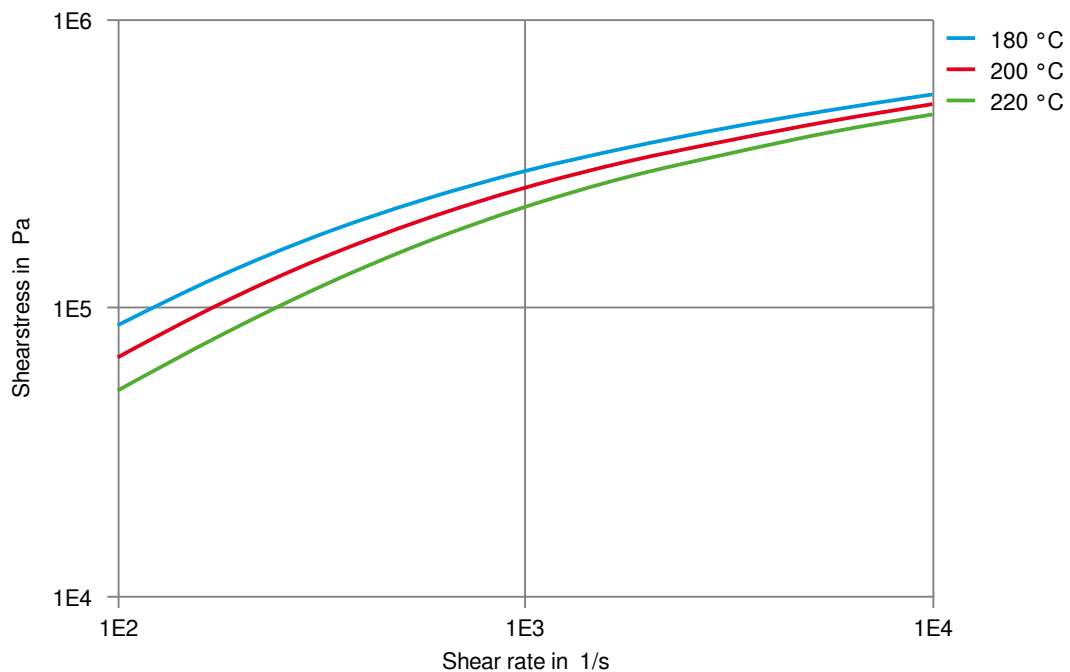
## Viscosity-shear rate



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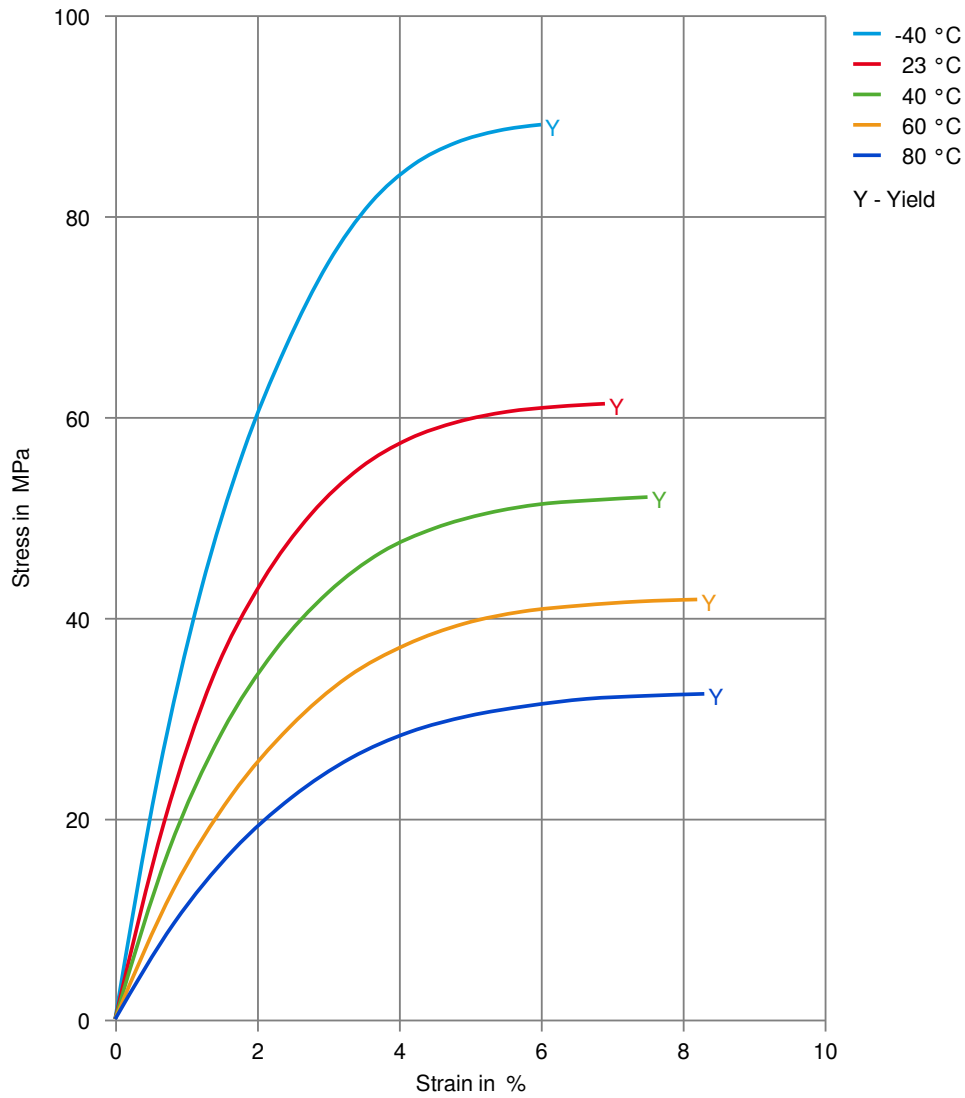
## Shearstress-shear rate



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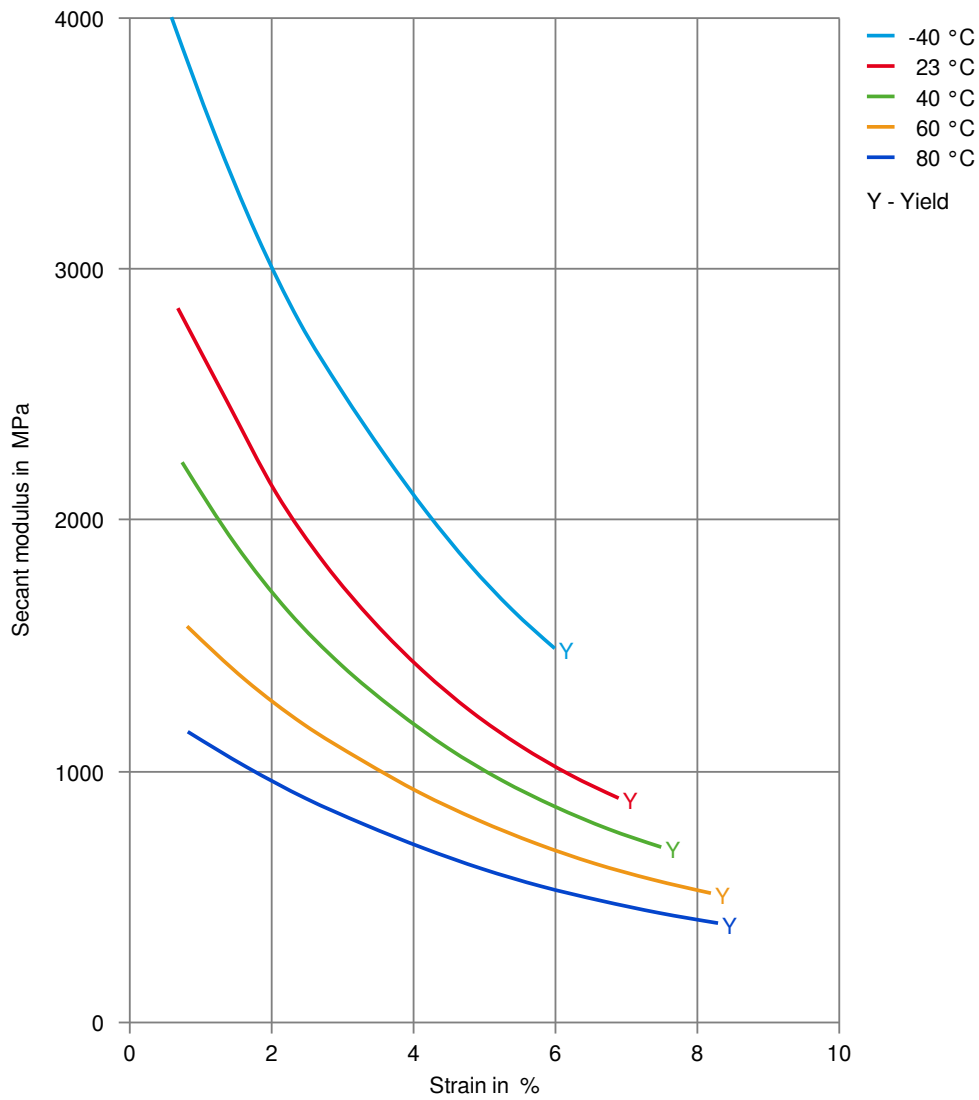
## Stress-strain



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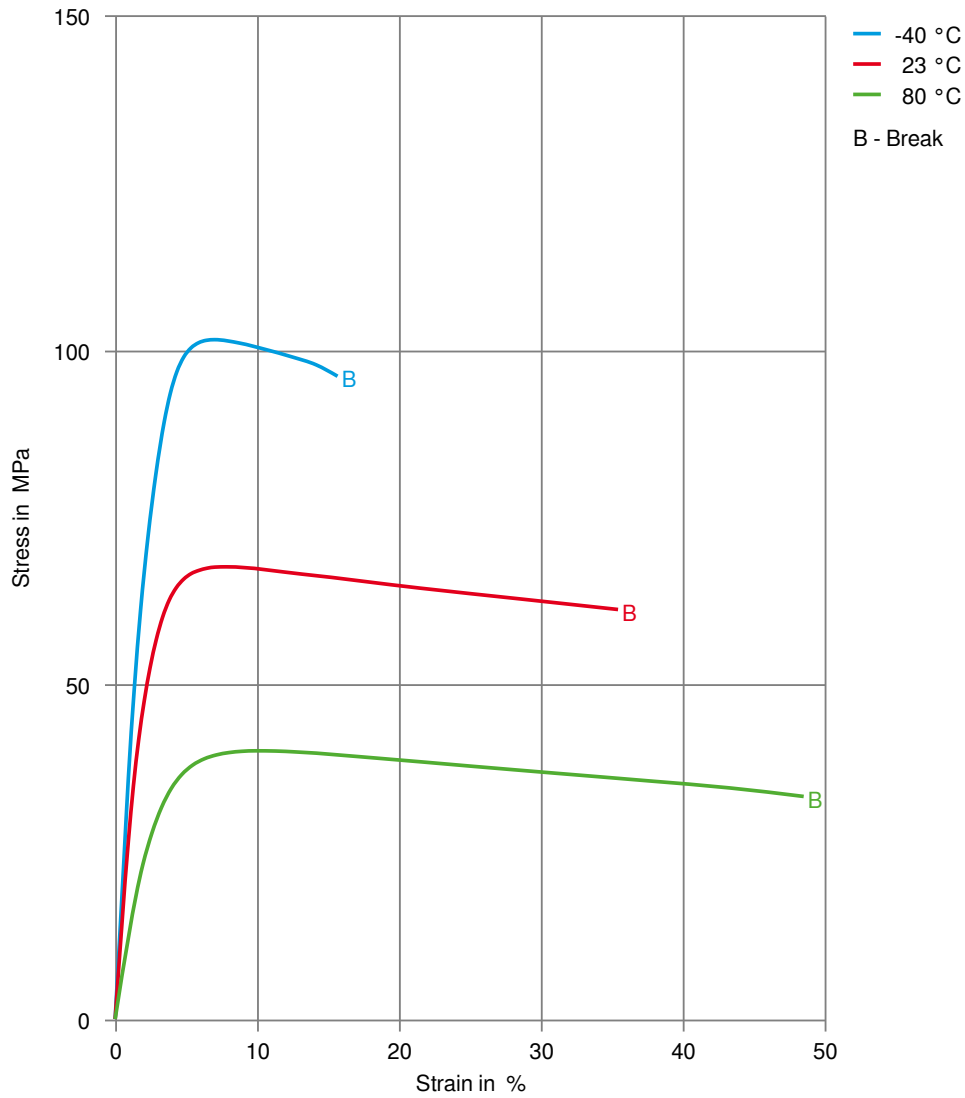
## Secant modulus-strain



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Stress-strain, 50mm/min

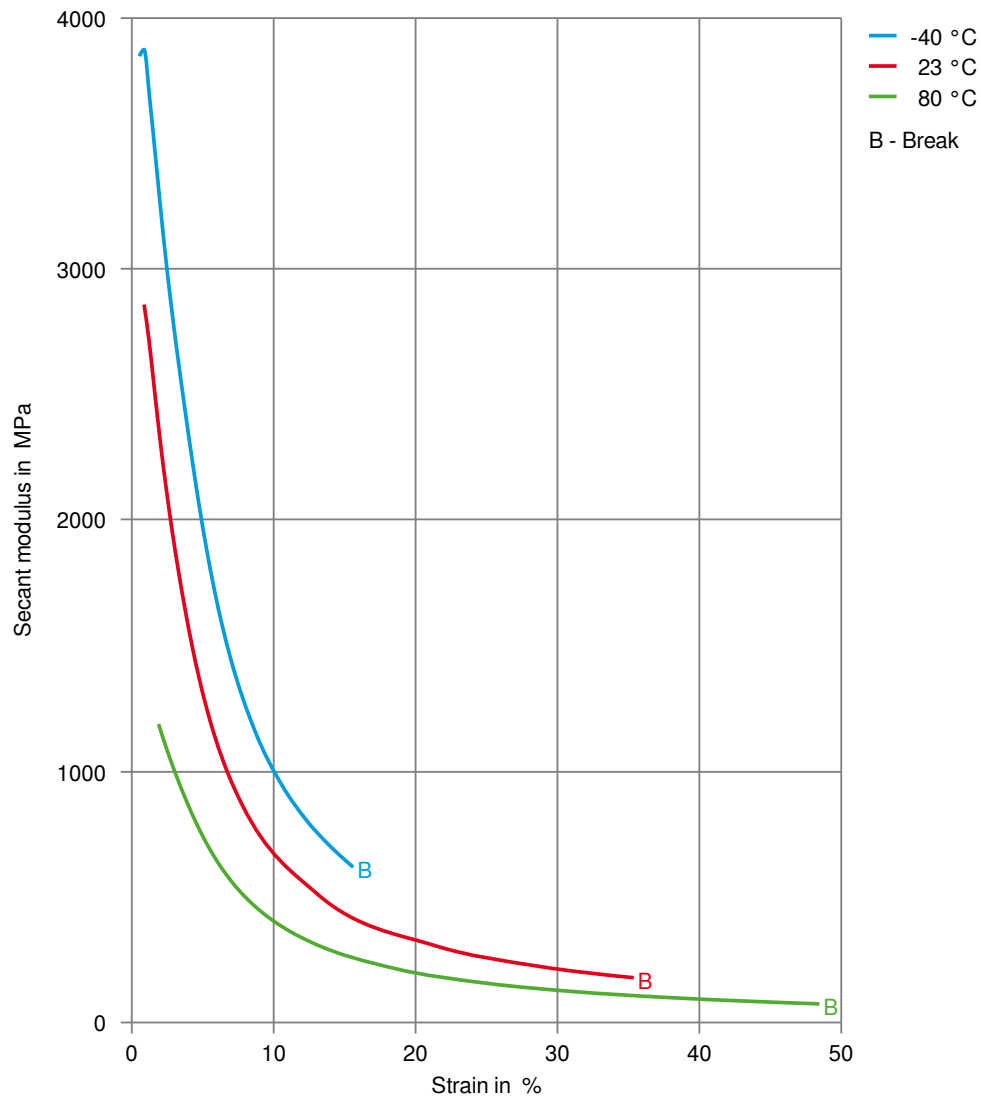




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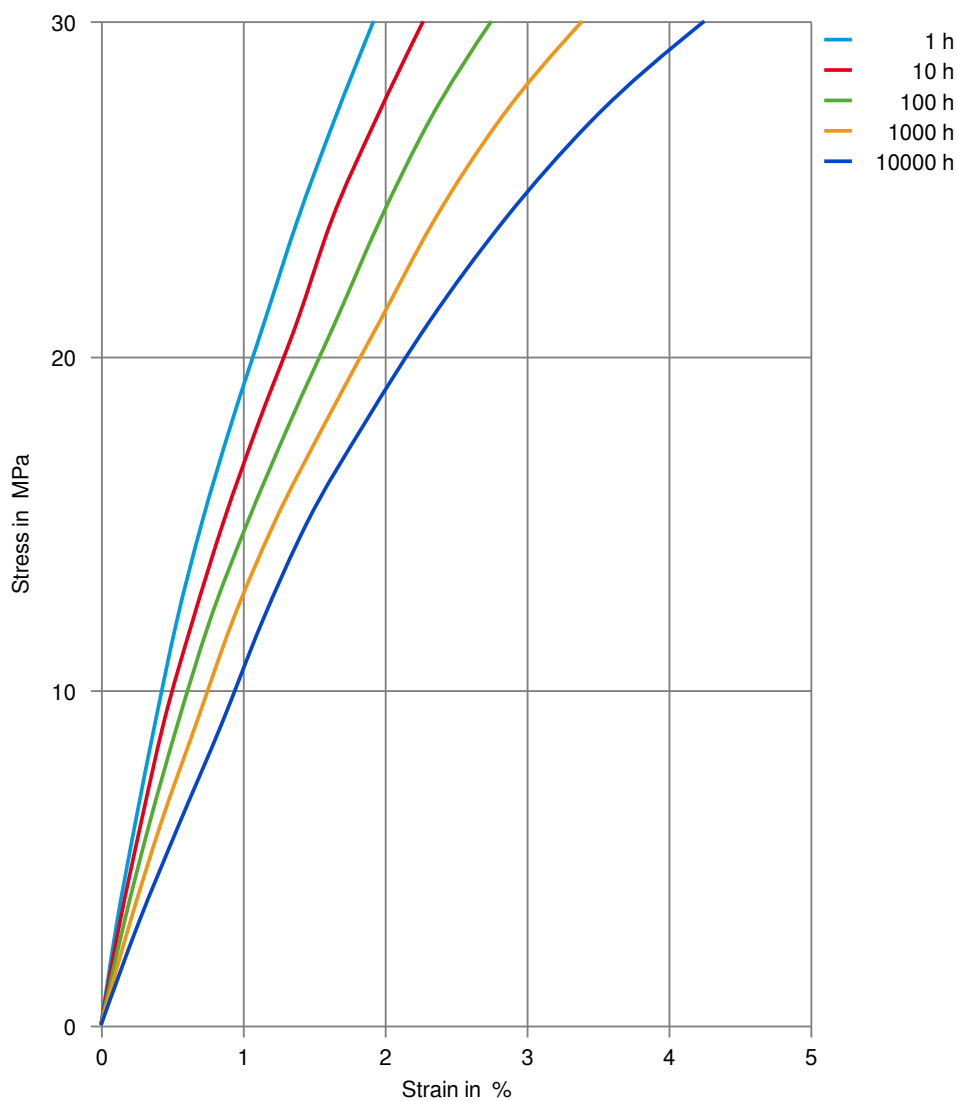
Secant modulus-strain, 50mm/min



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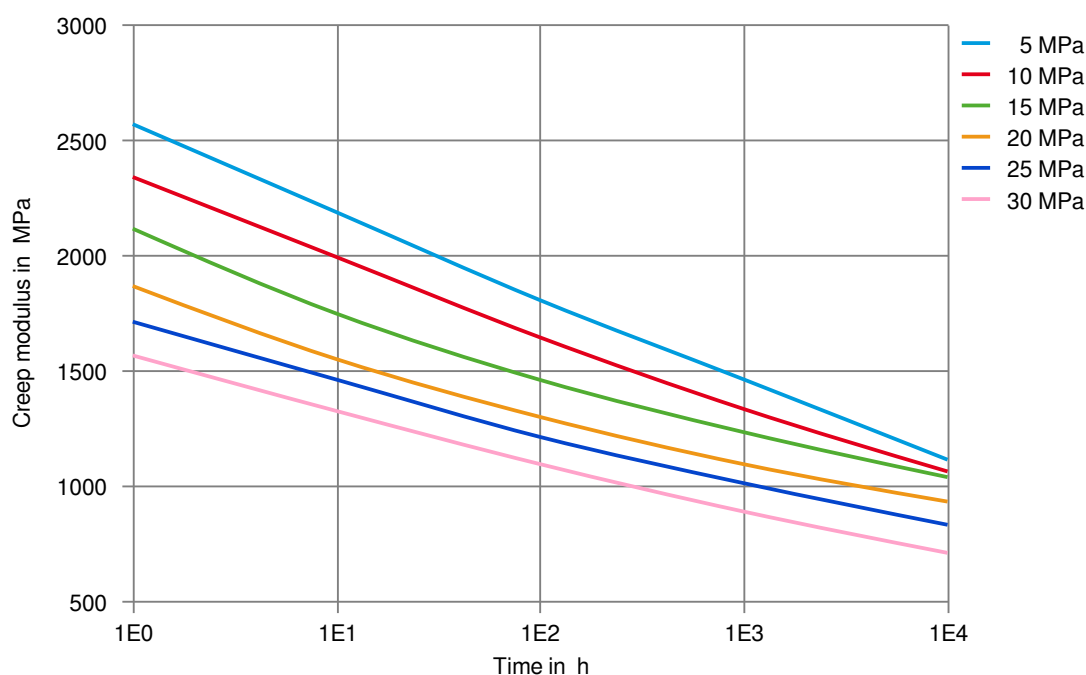
Stress-strain (isochronous) 23°C



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Creep modulus-time 23°C



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