

# HOSTAFORM® C 13031 LS

## HOSTAFORM®

POM copolymer

Easy flowing Injection molding type like C 13021, but with higher strength, rigidity and hardness over the entire permissible temperature range for HOSTAFORM; good chemical resistance to solvents, fuel and strong alkalis as well as good hydrolysis resistance; high resistance to thermal and oxidative degradation. With UV Additives

Burning rate ISO 3795 and FMVSS 302 < 75 mm/min for a thickness more than 1 mm.

Ranges of applications: For molded parts with higher requirements to strength, rigidity und hardness,

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	12 cm <sup>3</sup> /10min	ISO 1133
Temperature	190 °C	
Load	2.16 kg	
Moulding shrinkage, parallel	2.0 %	ISO 294-4, 2577
Moulding shrinkage, normal	1.8 %	ISO 294-4, 2577

### Typical mechanical properties

Tensile modulus	3050 MPa	ISO 527-1/-2
Tensile stress at yield, 50mm/min	68 MPa	ISO 527-1/-2
Tensile strain at yield, 50mm/min	8 %	ISO 527-1/-2
Nominal strain at break	28 %	ISO 527-1/-2
Flexural modulus	3000 MPa	ISO 178
Tensile creep modulus, 1h	2750 MPa	ISO 899-1
Tensile creep modulus, 1000h	1450 MPa	ISO 899-1
Charpy impact strength, 23°C	200 kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C	200 kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, 23°C	6.7 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	156 MPa	ISO 2039-1
Poisson's ratio	0.37 <sup>[C]</sup>	

[C]: Calculated

### Thermal properties

Melting temperature, 10°C/min	170 °C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	107 °C	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	110 E-6/K	ISO 11359-1/-2

### 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

# HOSTAFORM® C 13031 LS

## HOSTAFORM®

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/m <sup>3</sup>	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

### Characteristics

Processing	Injection Moulding
Delivery form	Pellets
Additives	Release agent
Special characteristics	U.V. stabilised or stable to weather

### Additional information

Injection molding

### Preprocessing

General drying is not necessary due to low moisture absorption of the resin.

In case of bad storage conditions (water contact or condensed water) the use of a recirculating air dryer (100 to 120 °C / max. 40 mm layer / 3 to 6 hours) is recommended.

Max. Water content 0,2 %

### Processing

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

# HOSTAFORM® C 13031 LS

HOSTAFORM®

## Processing Notes

### Postprocessing

Conditioning e.g. moisturizing is not necessary.

### Pre-Drying

Drying is not normally required. If material has come in contact with moisture through improper storage or handling or through regrind use, drying may be necessary to prevent splay and odor problems.

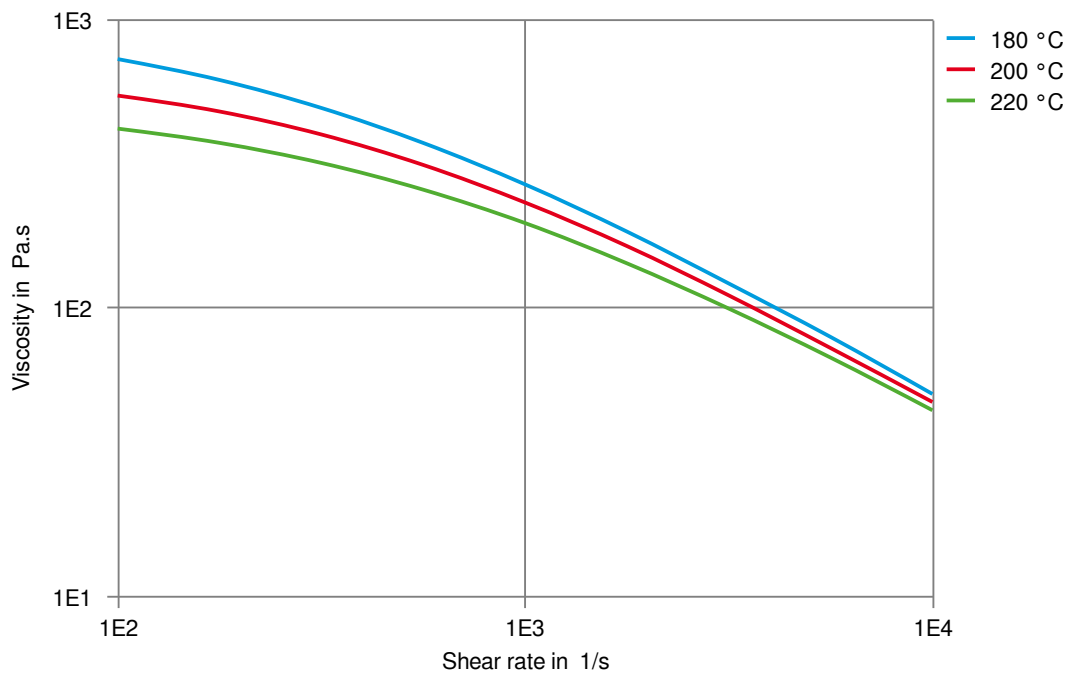
### Storage

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

# HOSTAFORM® C 13031 LS

HOSTAFORM®

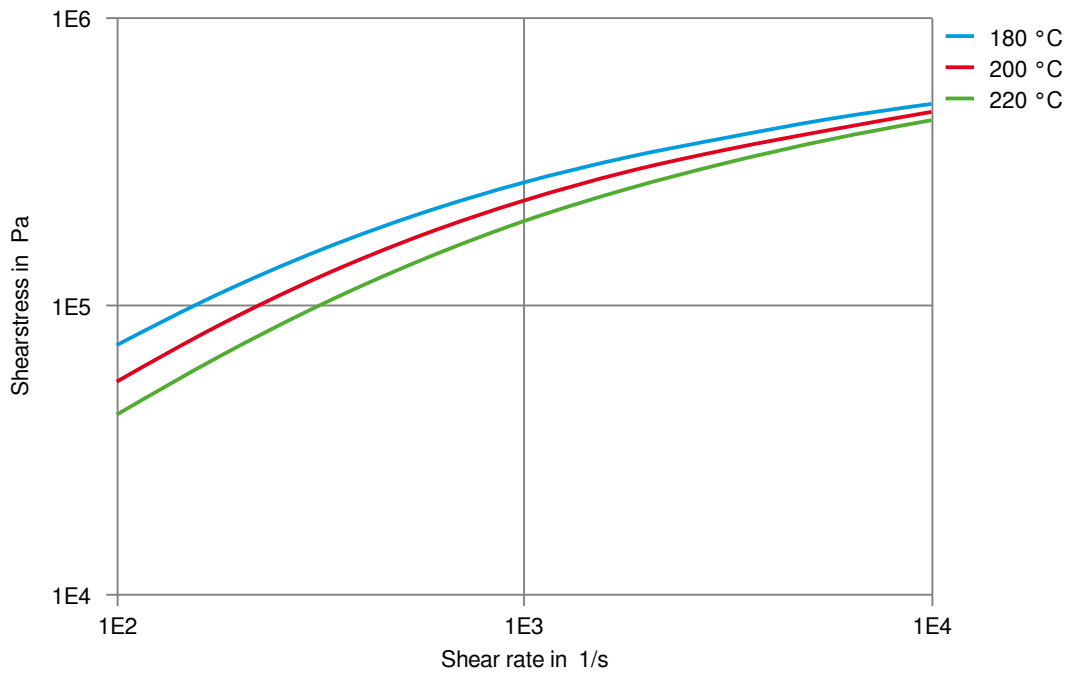
Viscosity-shear rate



# HOSTAFORM® C 13031 LS

HOSTAFORM®

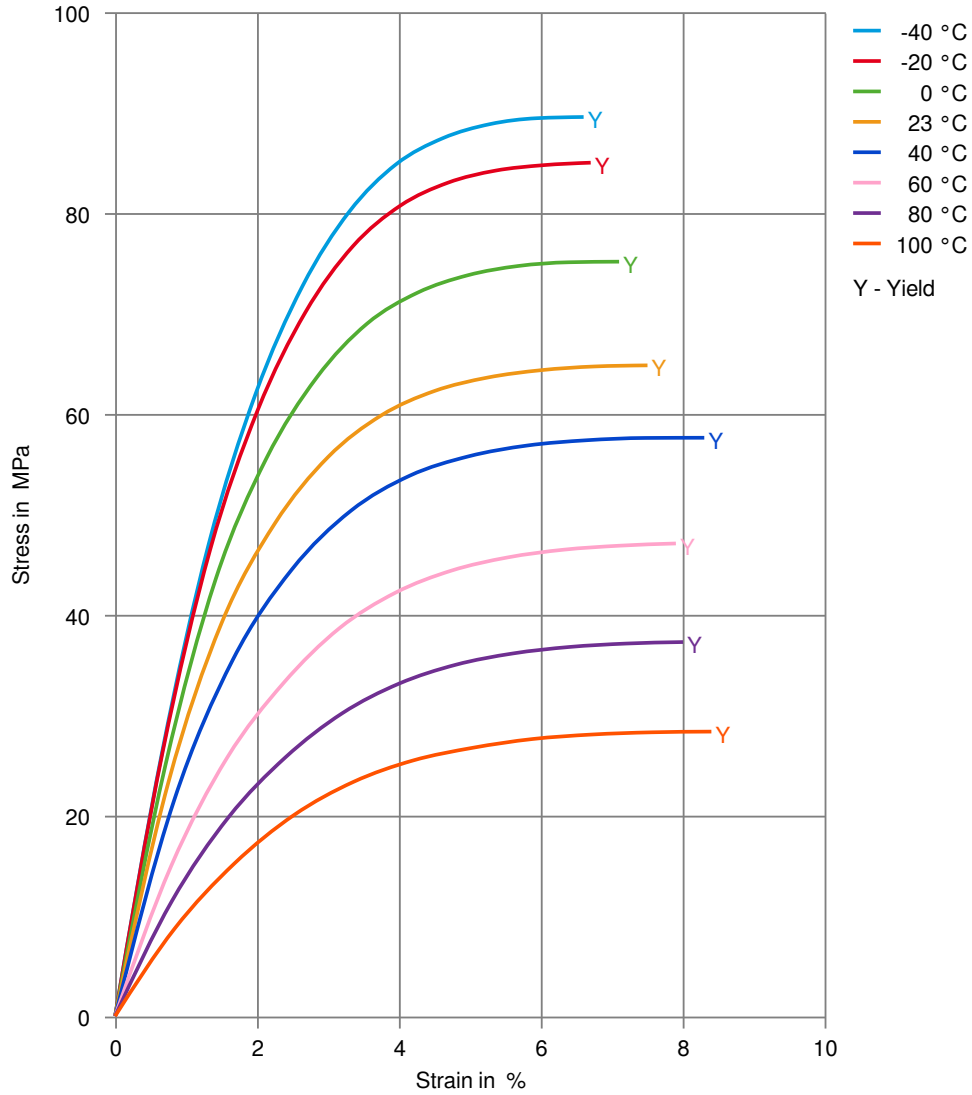
Shearstress-shear rate



# HOSTAFORM® C 13031 LS

HOSTAFORM®

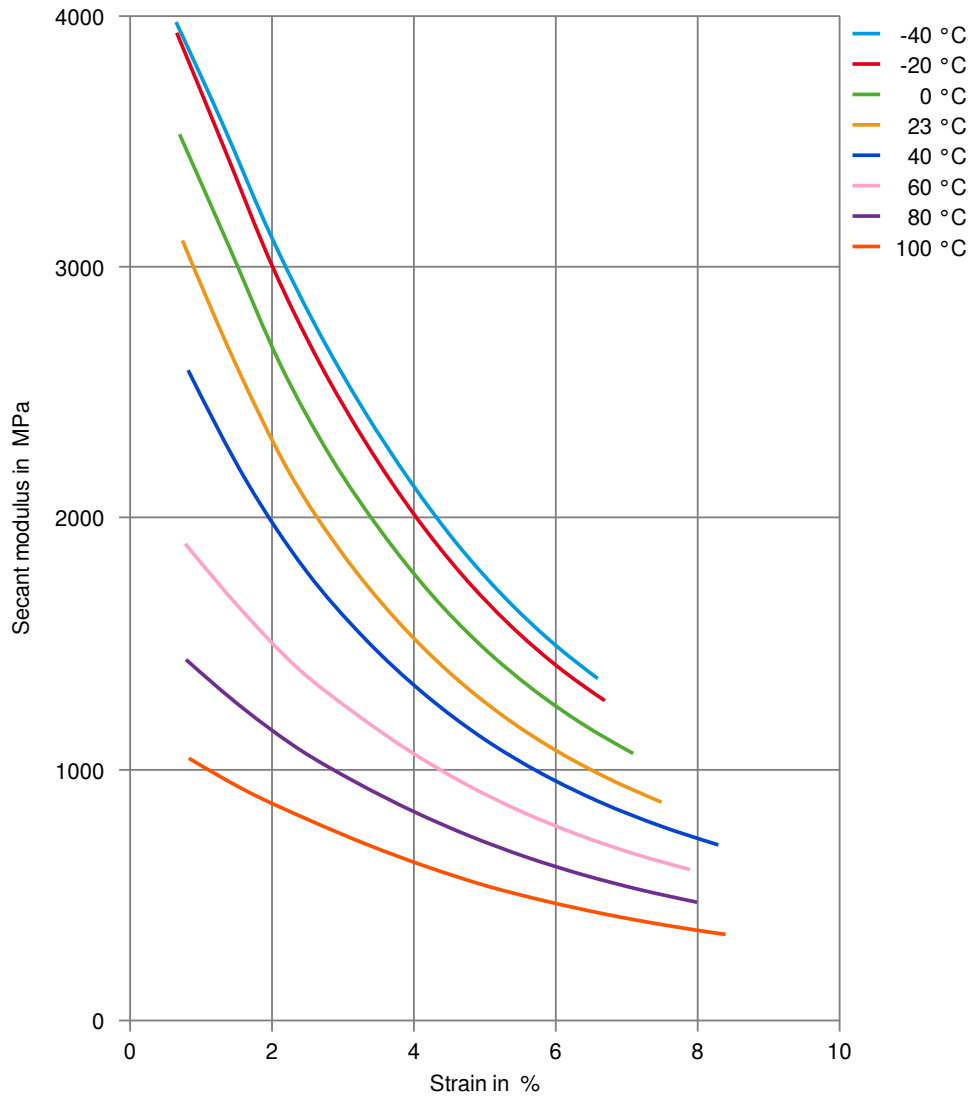
## Stress-strain



# HOSTAFORM® C 13031 LS

HOSTAFORM®

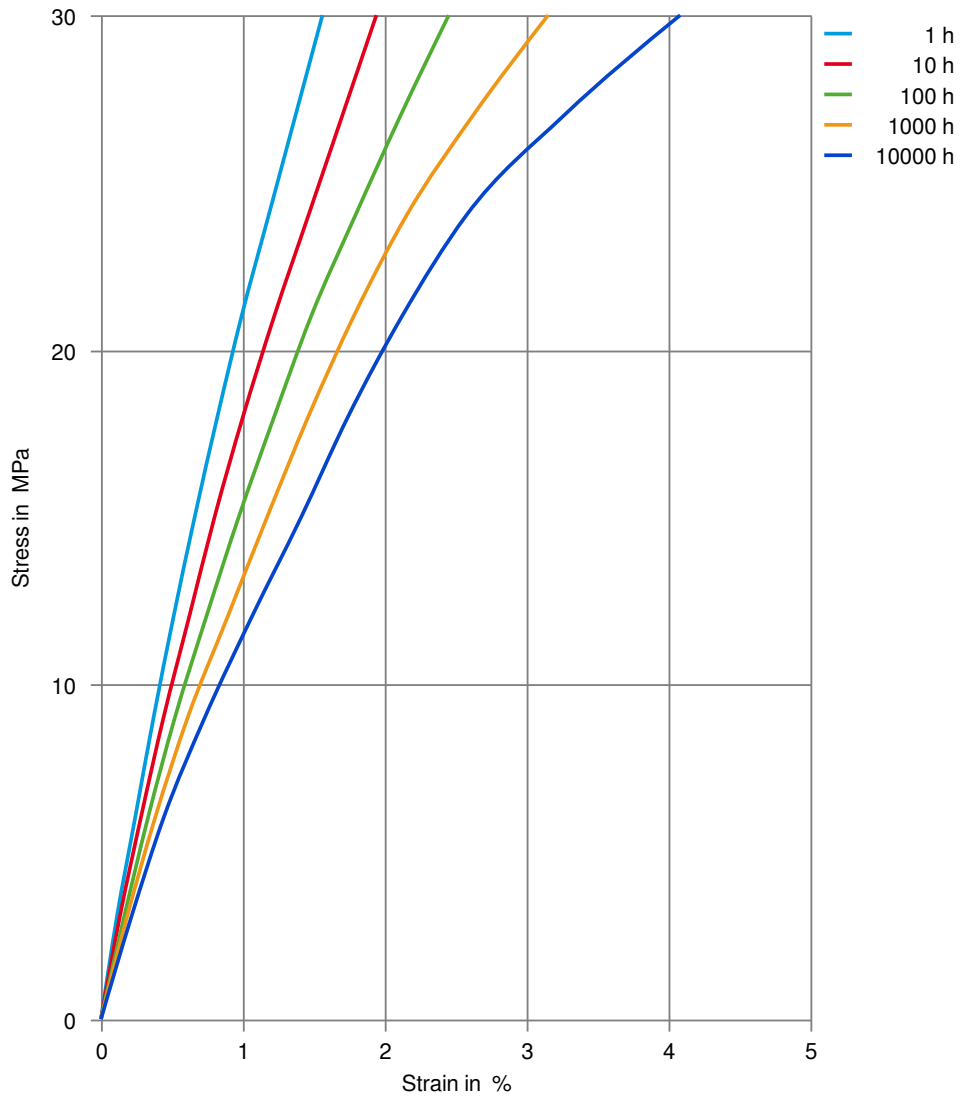
## Secant modulus-strain



# HOSTAFORM® C 13031 LS

HOSTAFORM®

Stress-strain (isochronous) 23°C



# HOSTAFORM® C 13031 LS

HOSTAFORM®

Creep modulus-time 23°C

