

# HOSTAFORM® C 52021 LS

Injection molding grade with extremely high flow  
 POM copolymer

Extremely easy flowing Injection molding type for very thin-walled precision molded parts with unfavourable flow-path-wall thickness relation; permits processing at reduced temperature and also shorter cycle times; for mechanical lower requirements; 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

Ranges of applications: For very thin-walled precision molded parts with unfavourable flow-path-wall thickness relation; permits processing at reduced temperature and also shorter cycle times.

## Rheological properties

Melt volume-flow rate	39 cm <sup>3</sup> /10min	ISO 1133
Temperature	190 °C	
Load	2.16 kg	
Moulding shrinkage, parallel	1.9 %	ISO 294-4, 2577
Moulding shrinkage, normal	1.8 %	ISO 294-4, 2577

## Typical mechanical properties

Tensile Modulus	3000 MPa	ISO 527-1/-2
Yield stress, 50mm/min	65 MPa	ISO 527-1/-2
Yield strain, 50mm/min	7 %	ISO 527-1/-2
Nominal strain at break	15 %	ISO 527-1/-2
Flexural Modulus	2800 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	150 kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C	150 kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, 23°C	5 kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30°C	5 kJ/m <sup>2</sup>	ISO 179/1eA
Ball indentation hardness, H 358/30	148 MPa	ISO 2039-1

## Thermal properties

Melting temperature, 10°C/min	166 °C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	106 °C	ISO 75-1/-2
Vicat softening temperature, 50°C/h, 50N	151 °C	ISO 306
Coeff. of linear therm. expansion, parallel	110 E-6/K	ISO 11359-1/-2
Thermal conductivity of melt	0.19 W/(m K)	Internal
Spec. heat capacity of melt	2060 J/(kg K)	Internal

## Electrical properties

Relative permittivity, 100Hz	4	IEC 62631-2-1
Relative permittivity, 1MHz	4	IEC 62631-2-1
Dissipation factor, 100Hz	30 E-4	IEC 62631-2-1
Dissipation factor, 1MHz	50 E-4	IEC 62631-2-1

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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	PLC 0 PLC	UL 746A

## 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
Density of melt	1200 kg/m³	Internal

## Injection

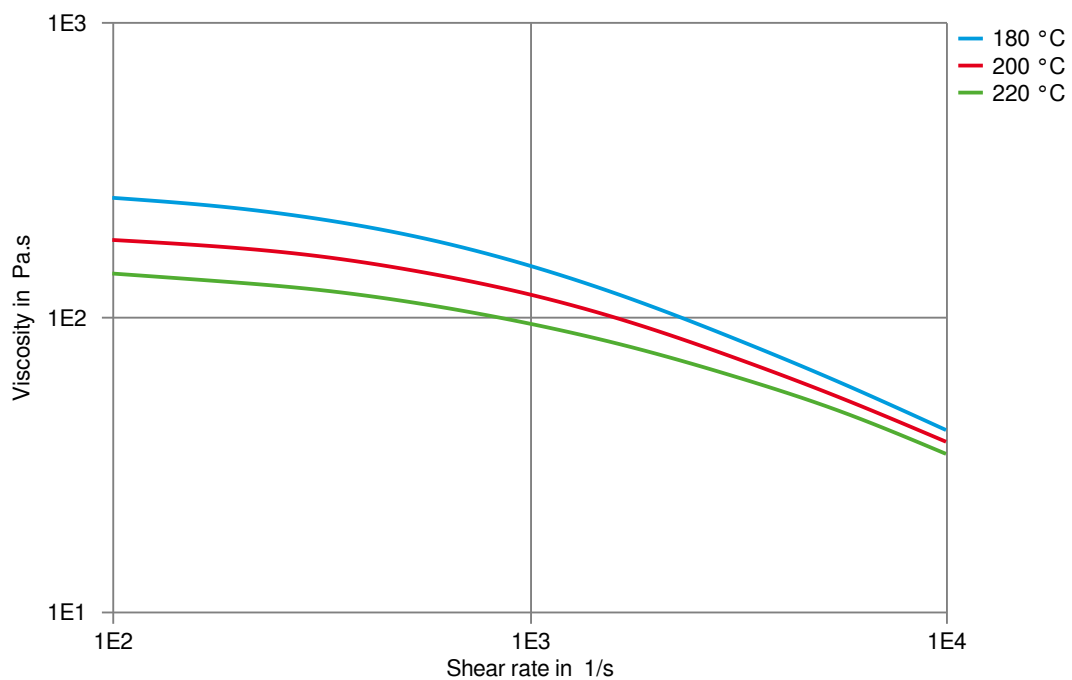
Drying Temperature	100 - 120 °C	
Drying Time, Dehumidified Dryer	3 - 4 h	
Processing Moisture Content	0.15 %	
Screw tangential speed	0.2 - 0.21 m/s	
Max. mould temperature	80 - 120 °C	
Back pressure	4 MPa	
Injection speed	slow-medium	
Ejection temperature	140 °C	Internal

## Characteristics

Additives	Release agent
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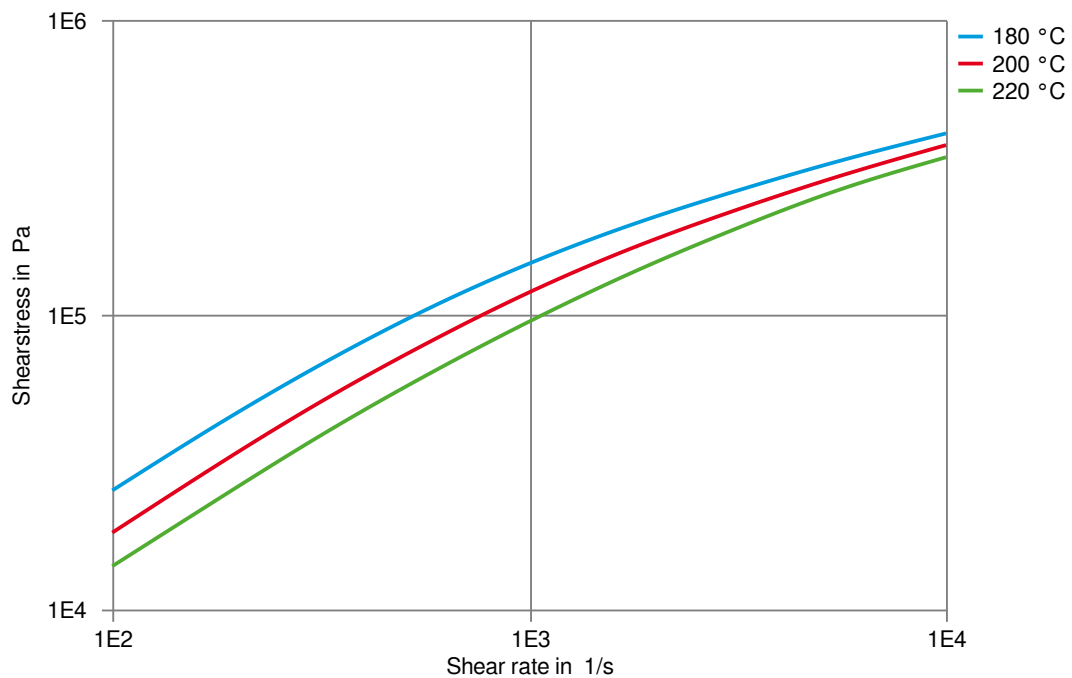
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## Viscosity-shear rate



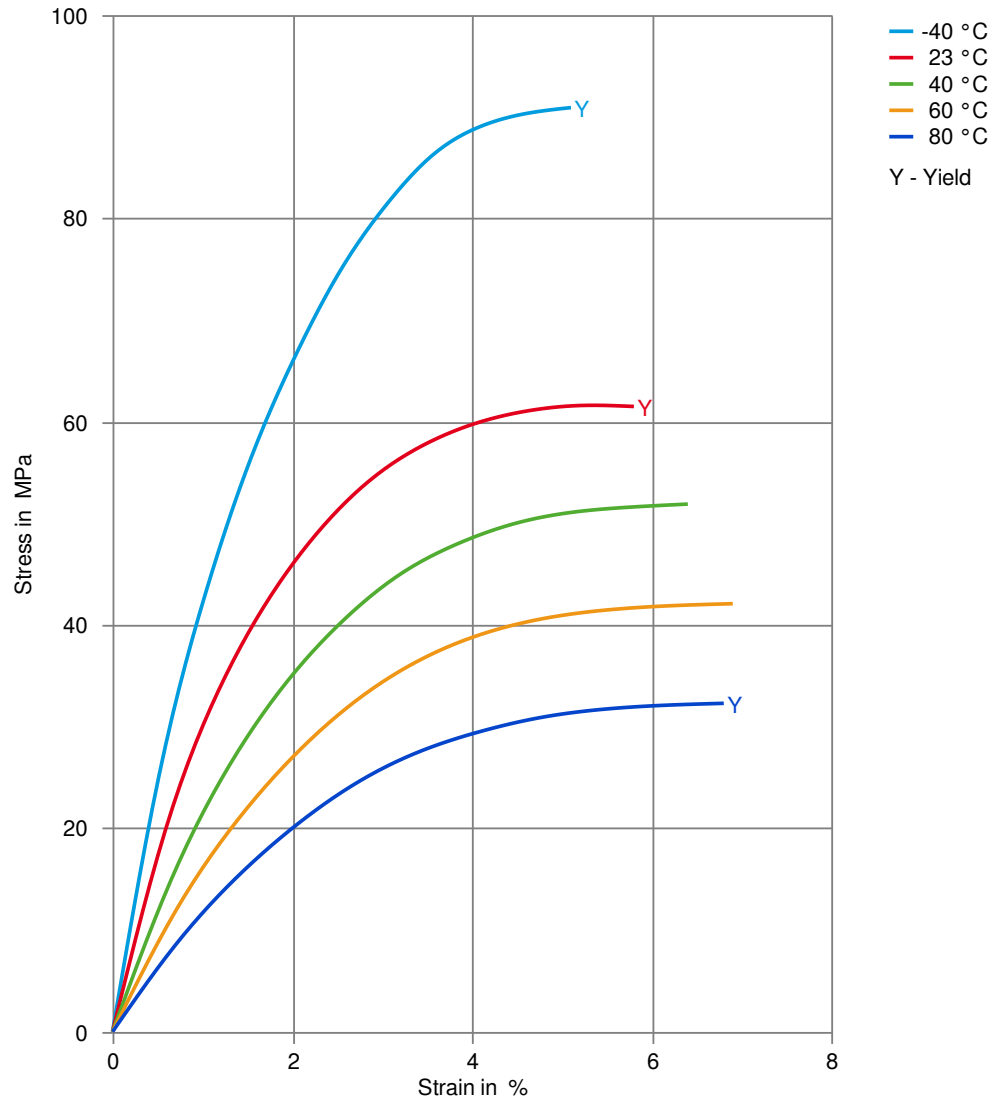
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## Shearstress-shear rate



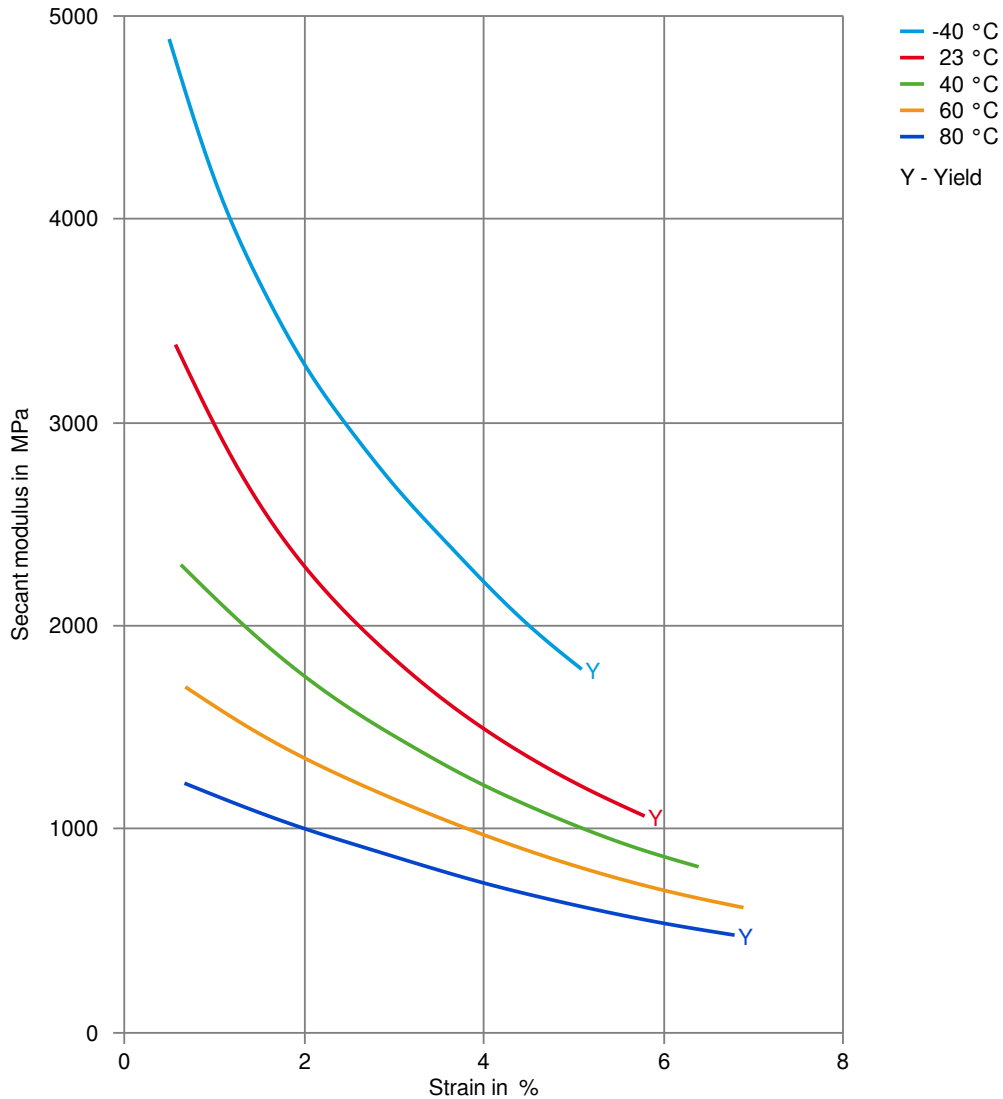
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## Stress-strain



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## Secant modulus-strain



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## Processing Texts

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.
Longer pre-drying times/storage	The product can then be stored in standard conditions until processed.