

**HOSTAFORM® C 9021 G - POM**
**Description**

Injection molding type like C 9021, with (R) GUR (PE-UHMW) modified

Chemical abbreviation according to ISO 1043-1: POM Molding compound ISO 29988- POM-K, M-GNS, 02-002 POM copolymer Injection molding type with (R) GUR (PE-UHMW) modified; 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 < 100 mm/min for a thickness more than 1 mm. Ranges of applications: for parts under abrasion stress. FMVSS = Federal Motor Vehicle Safety Standard (USA)

Physical properties	Value	Unit	Test Standard
Density	1340	kg/m <sup>3</sup>	ISO 1183
Melt volume rate, MVR	5.5	cm <sup>3</sup> /10min	ISO 1133
MVR temperature	190	°C	ISO 1133
MVR load	2.16	kg	ISO 1133
Molding shrinkage, parallel (flow)	2.3	%	ISO 294-4, 2577
Molding shrinkage, transverse normal	1.8	%	ISO 294-4, 2577
Water absorption, 23°C-sat	0.8	%	Sim. to ISO 62
Humidity absorption, 23°C/50%RH	0.2	%	ISO 62

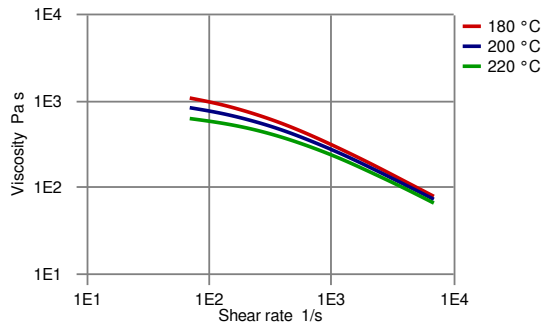
Mechanical properties	Value	Unit	Test Standard
Tensile modulus	2300	MPa	ISO 527-1, -2
Tensile stress at yield, 50mm/min	45	MPa	ISO 527-1, -2
Tensile strain at yield, 50mm/min	9	%	ISO 527-1, -2
Tensile nominal strain at break, 50mm/min	10	%	ISO 527-1, -2
Tensile creep modulus, 1h	2000	MPa	ISO 899-1
Tensile creep modulus, 1000h	1300	MPa	ISO 899-1
Flexural modulus, 23°C	2100	MPa	ISO 178
Charpy impact strength, 23°C	30	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30°C	30	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, 23°C	3.5	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30°C	3	kJ/m <sup>2</sup>	ISO 179/1eA
Ball indentation hardness, 30s	113	MPa	ISO 2039-1

Thermal properties	Value	Unit	Test Standard
Melting temperature, 10°C/min	166	°C	ISO 11357-1/-3
DTUL at 1.8 MPa	88	°C	ISO 75-1, -2
Coeff. of linear therm expansion, parallel	1.2	E-4/°C	ISO 11359-2

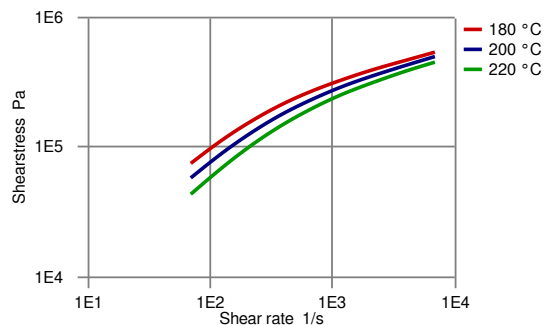
Electrical properties	Value	Unit	Test Standard
Dielectric constant (Dk), 100Hz	3.8	-	IEC 60250
Dielectric constant (Dk), 1MHz	3.8	-	IEC 60250
Dissipation factor, 100Hz	25	E-4	IEC 60250
Dissipation factor, 1MHz	70	E-4	IEC 60250
Volume resistivity, 23°C	1E12	Ohm*m	IEC 62631-3-1
Surface resistivity, 23°C	1E14	Ohm	IEC 62631-3-2
Electric strength, 23°C (AC)	35	kV/mm	IEC 60243-1
Comparative tracking index	PLC 0	-	UL 746

Diagrams

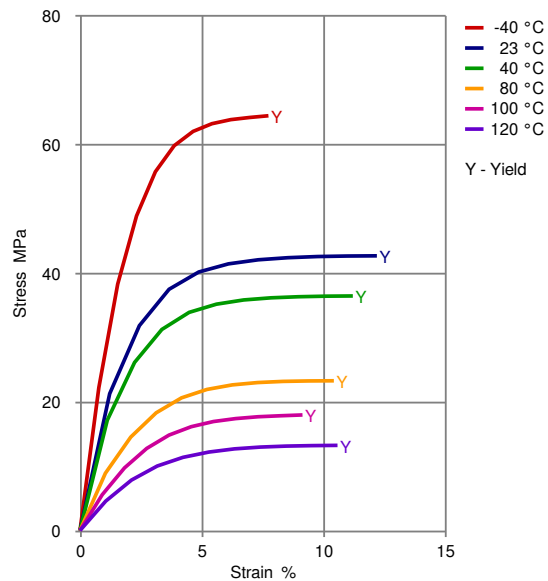
Viscosity-shear rate



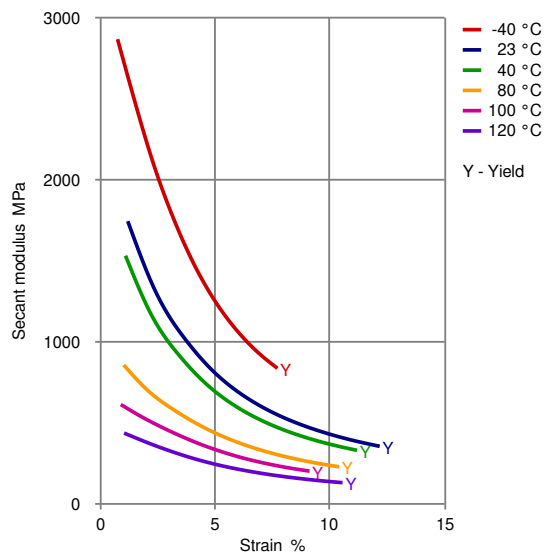
Shear stress-shear rate



Stress-strain



Secant modulus-strain



Typical injection moulding processing conditions

Pre Drying

	Value	Unit
Necessary low maximum residual moisture content	0.15	%
Drying time	3 - 4	h
Drying temperature	100 - 120	°C

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Temperature	Value	Unit
Hopper temperature	20 - 30	°C
Feeding zone temperature	60 - 80	°C
Zone1 temperature	170 - 180	°C
Zone2 temperature	180 - 190	°C
Zone3 temperature	190 - 200	°C
Zone4 temperature	190 - 210	°C
Nozzle temperature	190 - 210	°C
Melt temperature	190 - 230	°C
Mold temperature	80 - 120	°C
Hot runner temperature	190 - 210	°C

Pressure	Value	Unit
Back pressure max.	20	bar

Speed	Value
Injection speed	slow

Screw Speed	Value	Unit
Screw speed diameter, 25mm	150	RPM
Screw speed diameter, 40mm	100	RPM
Screw speed diameter, 55mm	70	RPM

### Other text information

#### 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.

#### Injection molding

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

#### 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 %

#### Injection Molding Postprocessing

Conditioning e.g. moisturizing is not necessary.

### Characteristics

<b>Special Characteristics</b>	Auto spec approved, Chemical resistant, Fuel resistant, Hydrolysis resistant
<b>Product Categories</b>	Tribological
<b>Processing</b>	Injection molding, Other extrusion
<b>Regulatory</b>	FDA food contact compliant
<b>Delivery Form</b>	Pellets

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## HOSTAFORM® C 9021 G - POM

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### Additives

Lubricants, Release agent

### Other Approvals

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OEM	Specification	Additional Information
Bosch	N28 BN22-X013	Natural

### Contact

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### General Disclaimer

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