

Injection molding type like C 9021; with special chalk modified

Chemical abbreviation according to ISO 1043-1: POM Molding compound ISO 29988- POM-K, M-GNR, 03-002, K5 POM copolymer Injection molding type, with special chalk modified; good wear properties; good chemical resistance to solvents, fuel and strong alkalis as well as good hydrolysis resistance; high resistance to thermal and oxidative degradation. UL-registration in natural and a thickness more than 1.57 mm as UL 94 HB, temperature index UL 746 B electrical 105 °C, mechanical 90 °C (tensile impact) and 80 °C (tensile). Burning rate ISO 3795 and FMVSS 302 < 100 mm/min for a thickness more than 1 mm. Ranges of applications: for unlubricated or once-only-lubricant sliding Parts. FMVSS = Federal Motor Vehicle Safety Standard (USA) UL = Underwriters Laboratories (USA)

#### **Product information**

Part Marking Code	POM		ISO 11469
Rheological properties			
Melt volume-flow rate	7.5	cm <sup>3</sup> /10min	ISO 1133
Temperature	190	°C	
Load	2.16	kg	
Moulding shrinkage, parallel	2.1	•	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	60	MPa	ISO 527-1/-2
Yield strain, 50mm/min	8	%	ISO 527-1/-2
Nominal strain at break	22	%	ISO 527-1/-2
Flexural Modulus	2900	MPa	ISO 178
Tensile creep modulus, 1h	2500	MPa	ISO 899-1
Tensile creep modulus, 1000h	1400	MPa	ISO 899-1
Charpy impact strength, 23°C	100	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	100	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	5	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	5	kJ/m²	ISO 179/1eA
Ball indentation hardness, H 358/30	145	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	100	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h, 50N	150	°C	ISO 306
Coeff. of linear therm. expansion, parallel	110	E-6/K	ISO 11359-1/-2
Thermal conductivity of melt	0.195	W/(m K)	Internal
Spec. heat capacity of melt	2060	J/(kg K)	Internal

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Internal

# HOSTAFORM® C 9021 K

### Flammability

Burning Behav. at 1.5mm nom. thickn.	HB class	UL 94
Thickness tested	1.6 mm	UL 94
Burning Behav. at thickness h	HB class	UL 94
Thickness tested	3.18 mm	UL 94
UL recognition	yes	UL 94

### **Electrical properties**

Relative permittivity, 100Hz	4.2	IEC 62631-2-1
Relative permittivity, 1MHz	4.2	IEC 62631-2-1
Dissipation factor, 100Hz	25 E-4	IEC 62631-2-1
Dissipation factor, 1MHz	60 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	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	1440 kg/m³	ISO 1183
Density of melt	1230 kg/m <sup>3</sup>	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	2 MPa
Injection speed	slow
Ejection temperature	140 °C

Characteristics

Additives Release agent

Additional information

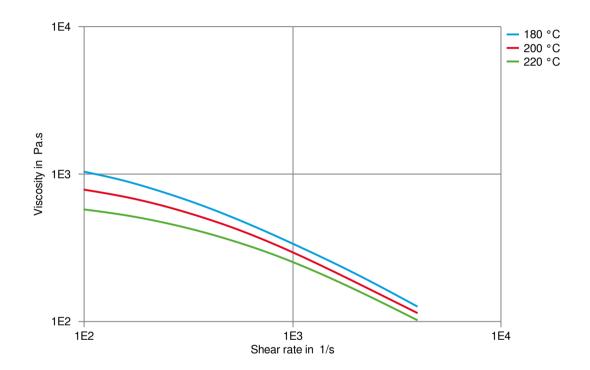
Injection molding Standard injection moulding machines with three phase (15 to 25 D)

plasticating screws will fit.

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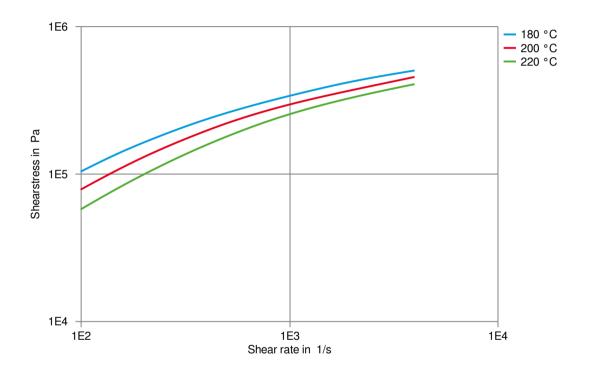
Viscosity-shear rate



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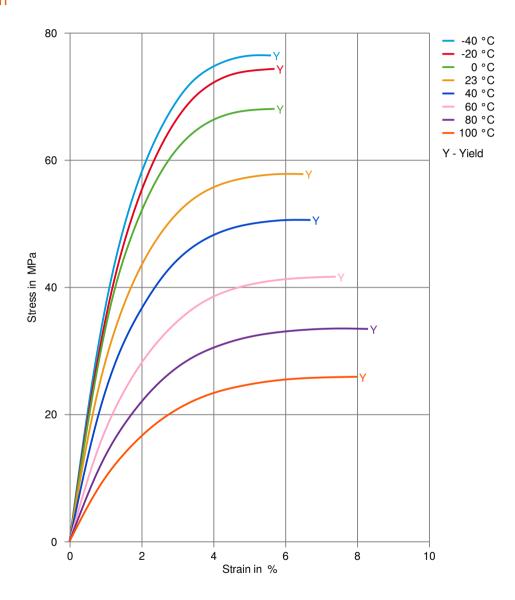
#### Shearstress-shear rate



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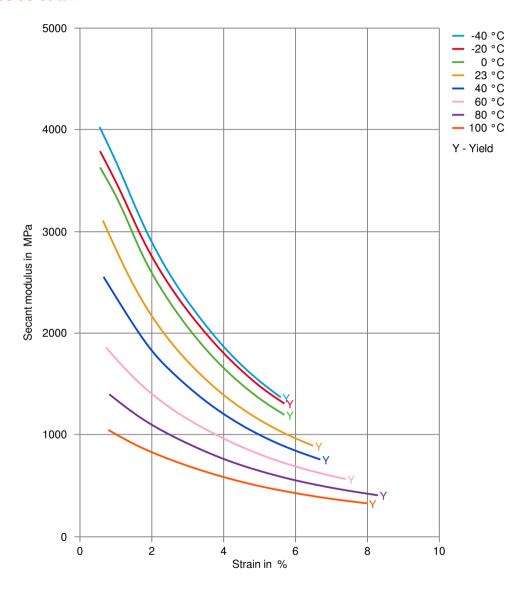
#### Stress-strain



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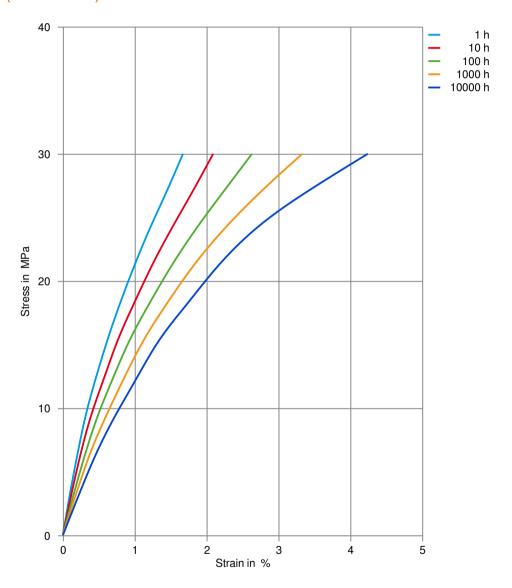
#### Secant modulus-strain



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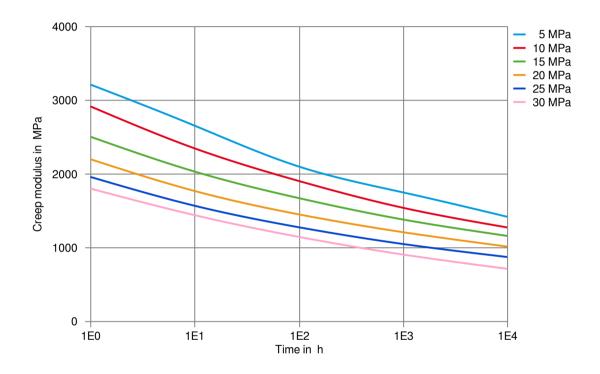
### Stress-strain (isochronous) 23°C



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Creep modulus-time 23°C



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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.

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.

Other Approvals

Other Approvals

OEM	Specification	Additional Information
BMW	GS 93016	
Bosch	N28 BN22-X016	Natural
Continental	TST N 055 54.09	

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Revised: 2023-05-26 Source: Celanese Materials Database

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