

# HOSTAFORM® C 9021 AW

Injection molding type like C 9021; with special additive modified

Chemical abbreviation according to ISO 1043-1: POM Molding compound ISO 29988- POM-K, M-GNS, 03-002 POM copolymer Injection molding type like C 9021, with special additive modified; good chemical resistance to solvents, fuel and strong alkalis as well as good hydrolysis resistance; high resistance to thermal and oxidative degradation; good wear properties and low coefficient of friction. UL-registration in natural and black and a thickness more than 1.5 mm as UL 94 HB. Burning rate ISO 3795 and FMVSS 302 < 100 mm/min for a thickness more than 1 mm. Ranges of applications: sliding parts for window lifter. UL = Underwriters Laboratories (USA) FMVSS = Federal Motor Vehicle Safety Standard (USA)

## Product information

Part Marking Code	POM	ISO 11469
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## Rheological properties

Melt volume-flow rate	8 cm <sup>3</sup> /10min	ISO 1133
Temperature	190 °C	
Load	2.16 kg	
Moulding shrinkage, parallel	2.1 %	ISO 294-4, 2577
Moulding shrinkage, normal	1.9 %	ISO 294-4, 2577

## Typical mechanical properties

Tensile Modulus	2600 MPa	ISO 527-1/-2
Yield stress, 50mm/min	58 MPa	ISO 527-1/-2
Yield strain, 50mm/min	8 %	ISO 527-1/-2
Nominal strain at break	20 %	ISO 527-1/-2
Flexural Modulus	2500 MPa	ISO 178
Shear Modulus	970 MPa	ISO 6721
Tensile creep modulus, 1h	2300 MPa	ISO 899-1
Tensile creep modulus, 1000h	1200 MPa	ISO 899-1
Charpy impact strength, 23 °C	150 kJ/m <sup>2</sup>	ISO 179/1eU
Charpy impact strength, -30 °C	130 kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, 23 °C	6 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	140 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	88 °C	ISO 75-1/-2
Vicat softening temperature, 50 °C/h, 50N	145 °C	ISO 306
Coeff. of linear therm. expansion, parallel	110 E-6/K	ISO 11359-1/-2

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## Flammability

Burning Behav. at 1.5mm nom. thickn.	HB class	UL 94
Thickness tested	1.5 mm	UL 94
Burning Behav. at thickness h	HB class	UL 94
Thickness tested	3.00 mm	UL 94
UL recognition	yes	UL 94

## Electrical properties

Relative permittivity, 100Hz	3.8	IEC 62631-2-1
Relative permittivity, 1MHz	3.8	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	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	1380 kg/m³	ISO 1183

## Injection

Drying Temperature	100 - 120 °C	
Drying Time, Dehumidified Dryer	3 - 4 h	
Processing Moisture Content	0.15 %	
Melt Temperature Optimum	200 °C	Internal
Screw tangential speed	0.2 - 0.21 m/s	
Max. mould temperature	80 - 120 °C	
Back pressure	2 MPa	
Injection speed	slow	

## Characteristics

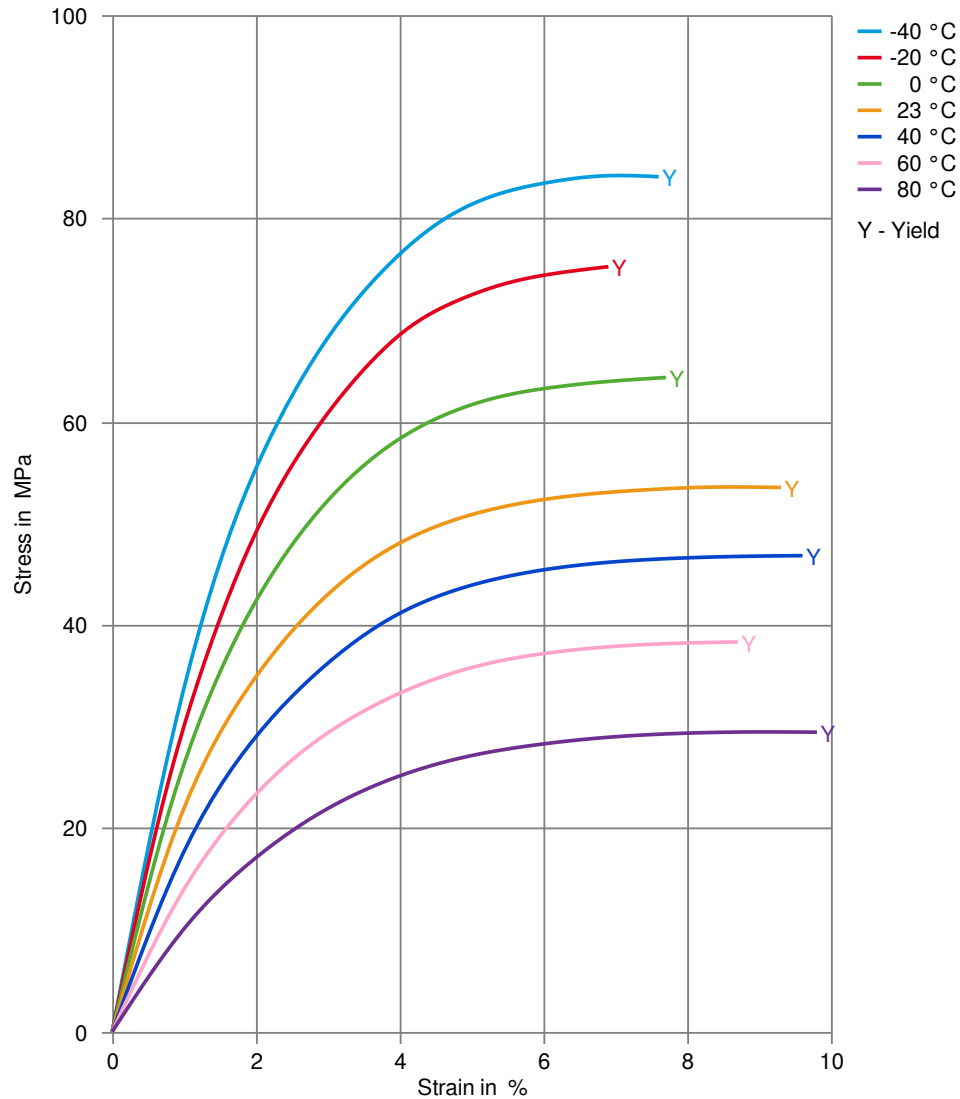
Additives	Release agent
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## Additional information

Injection molding	Standard injection moulding machines with three phase (15 to 25 D) plasticating screws will fit.
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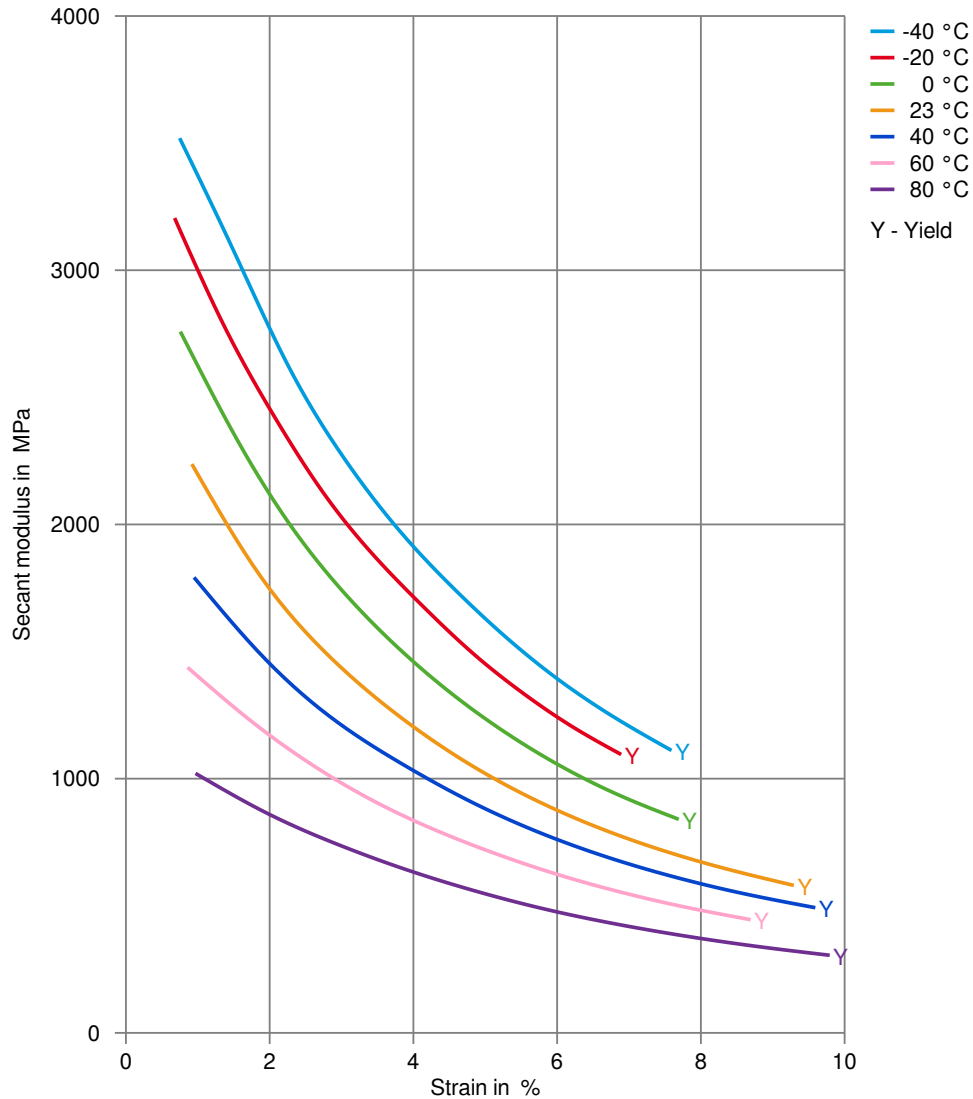
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## Stress-strain



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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.
Injection molding	Standard injection moulding machines with three phase (15 to 25 D) plasticating screws will fit.
Injection molding Preprocessing	<p>General drying is not necessary due to low moisture absorption of the resin.</p> <p>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.</p> <p>Max. Water content 0,2 %</p>
Injection molding Postprocessing	Conditioning e.g. moisturizing is not necessary.

## Other Approvals

### Other Approvals

OEM	Specification	Additional Information
Continental	TST N 055 54.22	
Mercedes-Benz Group (Daimler)	DBL 5404	BQF