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HOSTAFORM® C 9021 TF

Injection molding type like C 9021; with PTFE modified
Chemical abbreviation according to ISO 1043-1: POM Molding compound ISO 29988- POM-K, M-GNS, 02-002 POM copolymer Injection molding type, modified with PTFE; good chemical resistance to solvents, fuel and strong alkalis as well as good hydrolysis resistance; high resistance to thermal and oxidative degradation; for sliding combinations with very low coefficient of friction. 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 95 °C (tensile impact) and 100 °C (tensile). Burning rate ISO 3795 and FMVSS 302 < 100 mm/min for a thickness more than 1 mm. Ranges of applications: For sliding combinations with very low coefficient of friction. 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	6	cm^3/10min	ISO 1133
Temperature	190	°C	
Load	2.16	kg	
Moulding shrinkage, parallel	2.0	%	ISO 294-4, 2577
Moulding shrinkage, normal	1.7	%	ISO 294-4, 2577

Typical mechanical properties

Tensile Modulus	2500	MPa	ISO 527-1/-2
Yield stress, 50mm/min	48	MPa	ISO 527-1/-2
Yield strain, 50mm/min	10	%	ISO 527-1/-2
Nominal strain at break	16	%	ISO 527-1/-2
Flexural Modulus	2400	MPa	ISO 178
Shear Modulus	900	MPa	ISO 6721
Tensile creep modulus, 1h	2100	MPa	ISO 899-1
Tensile creep modulus, 1000h	1200	MPa	ISO 899-1
Charpy impact strength, 23°C	60	kJ/m^2	ISO 179/1eU
Charpy impact strength, -30°C	60	kJ/m^2	ISO 179/1eU
Charpy notched impact strength, 23°C	4	kJ/m^2	ISO 179/1eA
Charpy notched impact strength, -30°C	4	kJ/m^2	ISO 179/1eA
Ball indentation hardness, H 358/30	120	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	98	°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	1.6	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	3.7		IEC 62631-2-1
Relative permittivity, 1MHz	3.7		IEC 62631-2-1
Dissipation factor, 100Hz	20	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	80	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	33	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	1510	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	190	°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

Additional information

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

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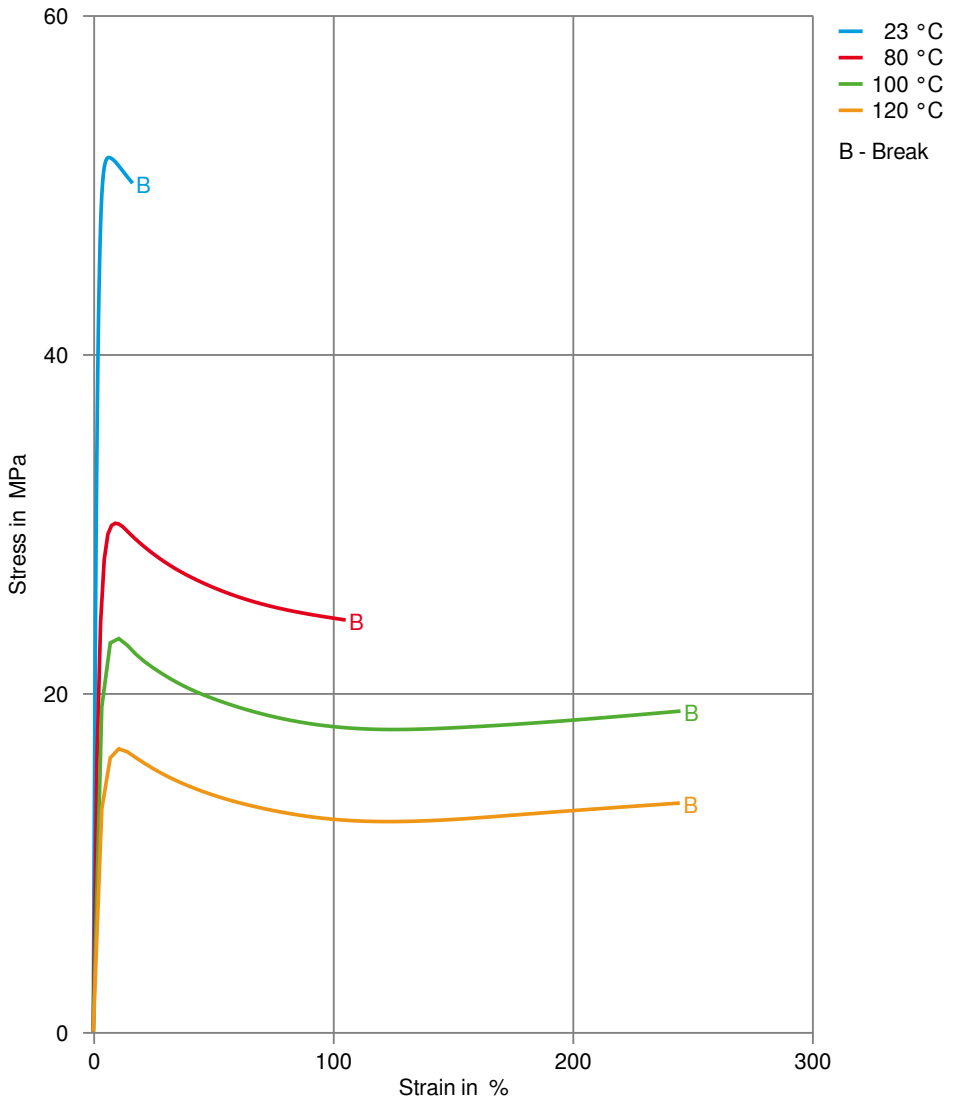
Stress-strain



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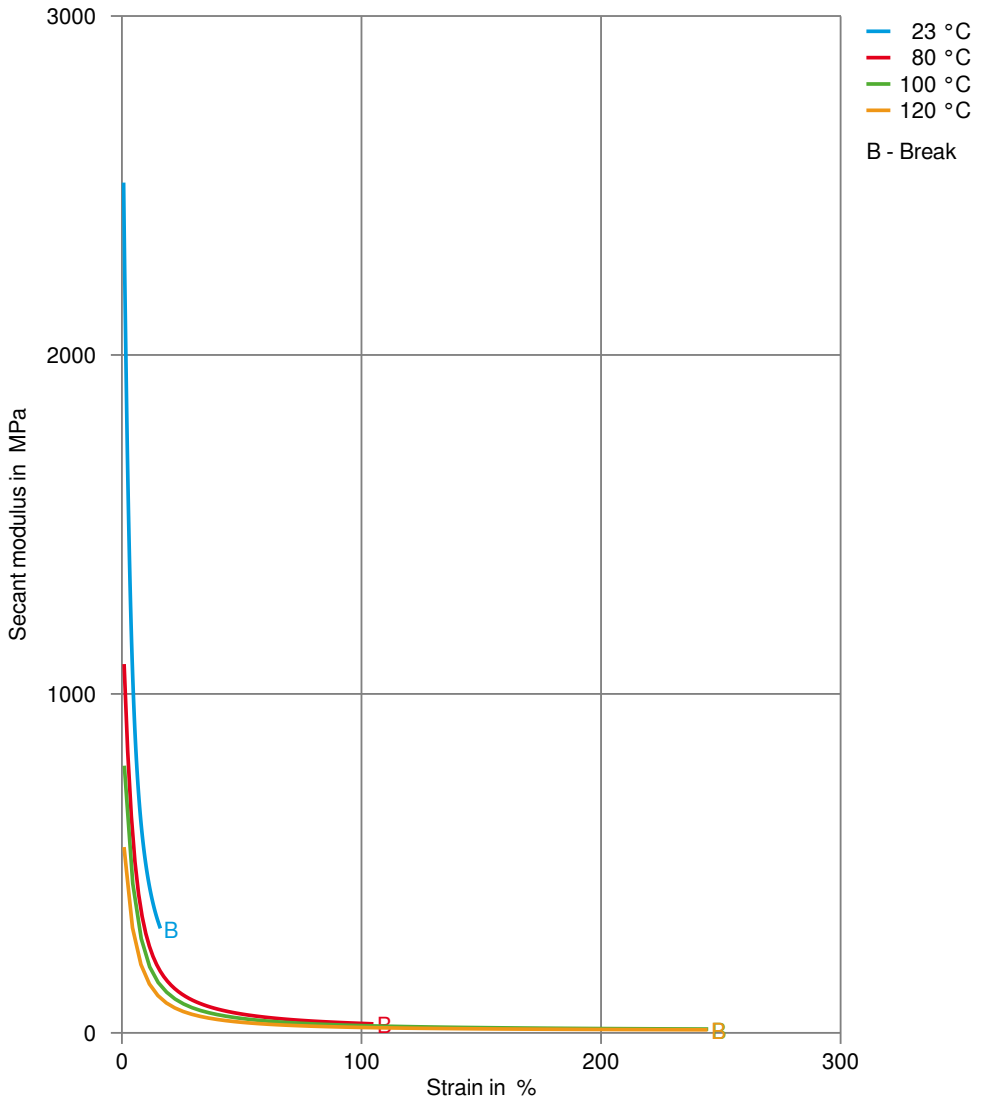
Secant modulus-strain



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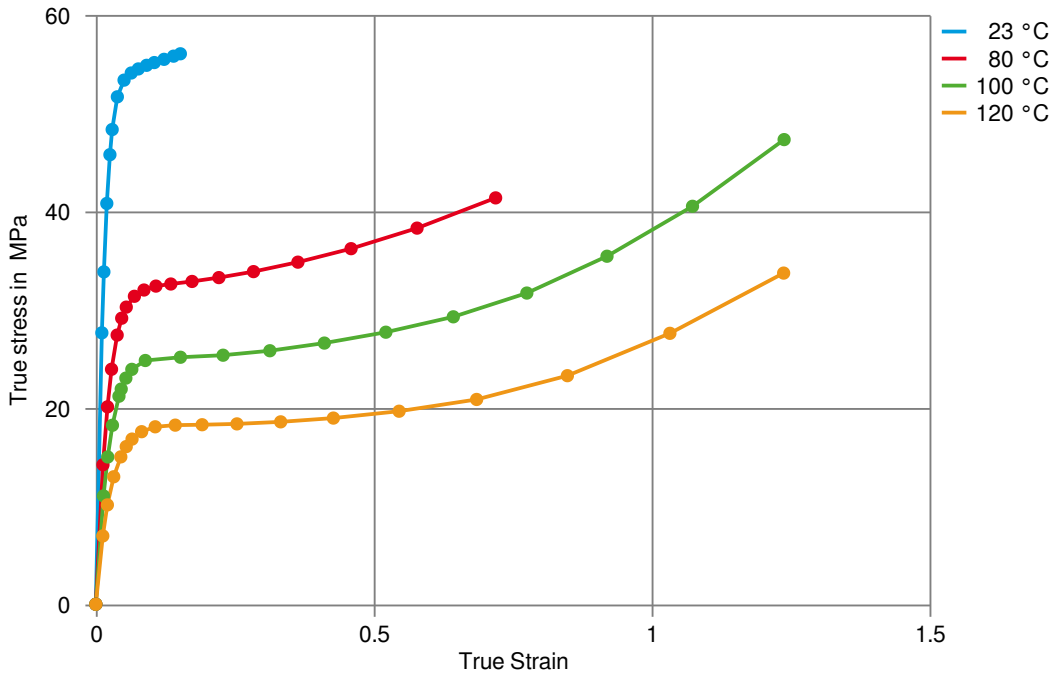
True stress-strain



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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	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-X017	Natural
Continental	TST N 055 54.18	
Mercedes-Benz Group (Daimler)	DBL 5410	(5410.00)
GM	GMW22P-POM-C2S	Natural & Black
Nissan	POM(0xx)-Ixx-1	
SAIC Motor	SMTC 5 310 020	

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