

HOSTAFORM® C 9021 SW - POM
Description

Injection molding type like C 9021, special modified with anti-friction additives for prevention of squeaking noise

Chemical abbreviation according to ISO 1043-1: POM-KD10

Molding compound ISO 29988-POM-K,KD10,GNRS2,3-2

POM copolymer Injection molding type, special modified with anti-friction additives for prevention of squeaking noise; 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 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 1,5 mm. Ranges of applications: For sliding combinations with low wear and low coefficient of friction, prevents squeaking noise. UL = Underwriters Laboratories (USA) FMVSS = Federal Motor Vehicle Safety Standard (USA)

Physical properties	Value	Unit	Test Standard
Density	1420	kg/m ³	ISO 1183
Melt volume rate, MVR	6.5	cm ³ /10min	ISO 1133
MVR temperature	190	°C	ISO 1133
MVR load	2.16	kg	ISO 1133
Molding shrinkage, parallel (flow)	2.1	%	ISO 294-4, 2577
Molding shrinkage, transverse normal	1.7	%	ISO 294-4, 2577
Water absorption, 23°C-sat	1.2	%	ISO 62
Humidity absorption, 23°C/50%RH	0.2	%	ISO 62

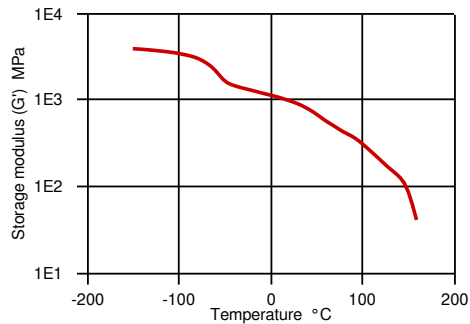
Mechanical properties	Value	Unit	Test Standard
Tensile modulus	2850	MPa	ISO 527-1, -2
Tensile stress at yield, 50mm/min	53	MPa	ISO 527-1, -2
Tensile strain at yield, 50mm/min	7	%	ISO 527-1, -2
Tensile nominal strain at break, 50mm/min	16	%	ISO 527-1, -2
Tensile creep modulus, 1h	2400	MPa	ISO 899-1
Tensile creep modulus, 1000h	1200	MPa	ISO 899-1
Charpy impact strength, 23°C	90	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	85	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, 30s	135	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	80	°C	ISO 75-1, -2
Coeff. of linear therm expansion, parallel	1.2	E-4/°C	ISO 11359-2
Flammability @1.6mm nom. thickn.	HB	class	UL 94
thickness tested (1.6)	1.6	mm	UL 94
Flammability at thickness h	HB	class	UL 94
thickness tested (h)	3.18	mm	UL 94
UL recognition (h)	UL	-	UL 94

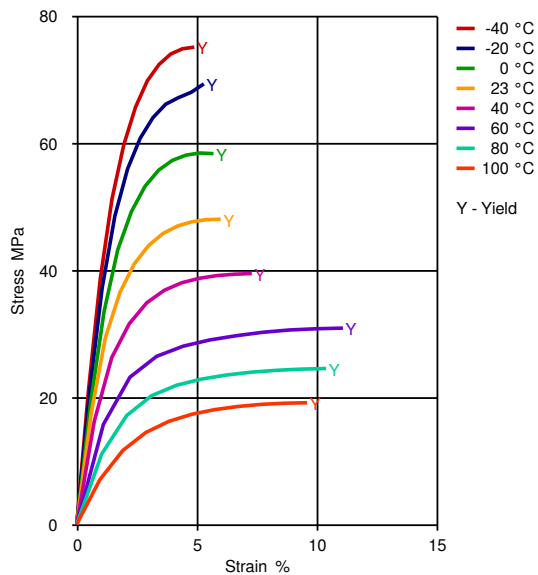
Electrical properties	Value	Unit	Test Standard
Dielectric constant (Dk), 100Hz	4.1	-	IEC 60250
Dielectric constant (Dk), 1MHz	4.1	-	IEC 60250
Dissipation factor, 100Hz	35	E-4	IEC 60250
Dissipation factor, 1MHz	75	E-4	IEC 60250
Volume resistivity, 23°C	1E12	Ohm*m	IEC 62631-3-1
Surface resistivity, 23°C	1E14	Ohm	IEC 62631-3-2
Comparative tracking index	PLC 0	-	UL 746

Diagrams

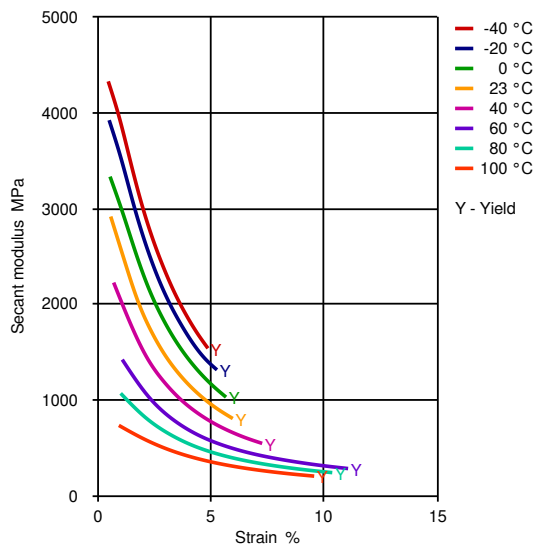
Dynamic Shear modulus-temperature



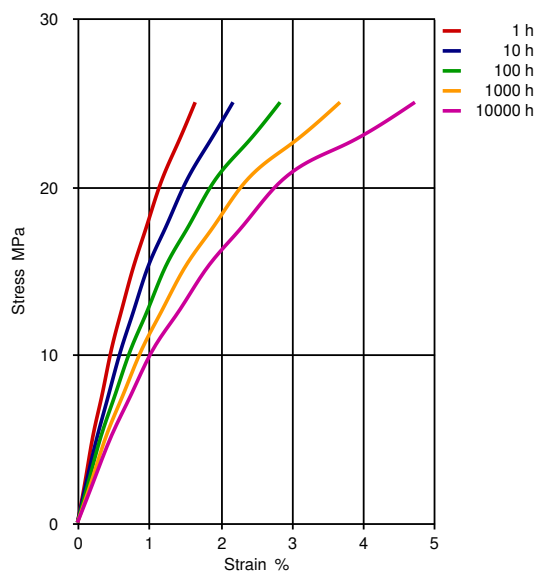
Stress-strain



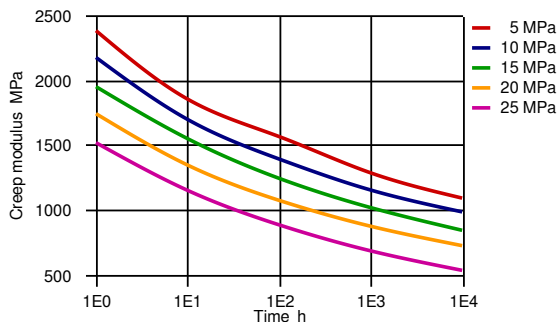
Secant modulus-strain



Stress-strain (isochronous) 23 °C



Creep modulus-time 23 °C



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

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 - 210	°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.

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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

Special Characteristics	Auto spec approved
Product Categories	Tribological
Processing	Injection molding, Other extrusion
Delivery Form	Pellets
Additives	Lubricants, Release agent

Other Approvals

OEM	Specification
Bosch	N28 BN22-O015 (NAT & BLK)
Continental	TST N 055 54.23
Nissan	POM(0xx)-lxx-1

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