

Injection molding grade with moderate flow and higher strength; rigidity and hardness; with special chalk modified Chemical abbreviation according to ISO 1043-1: POM Molding compound ISO 29988- POM-K, M-GNR, 04-002, K5 POM copolymer Easy flowing Injection molding type with higher strength, rigidity and hardness with special chalk 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 UL-registration in natural 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: For unlubricated or once-only-lubricant sliding Parts and gear wheels. 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	11	cm ³ /10min	ISO 1133
Temperature	190	°C	
Load	2.16	kg	
Moulding shrinkage, parallel	2.0	%	ISO 294-4, 2577
Moulding shrinkage, normal	1.8	%	ISO 294-4, 2577
Typical mechanical properties			
Tensile Modulus	3100	MPa	ISO 527-1/-2
Yield stress, 50mm/min	64	MPa	ISO 527-1/-2
Yield strain, 50mm/min	8	%	ISO 527-1/-2
Nominal strain at break	15	%	ISO 527-1/-2
Charpy notched impact strength, 23°C	5	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	5	kJ/m²	ISO 179/1eA
Thermal properties			
Melting temperature, 10°C/min	170	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	105	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h, 50N	156	°C	ISO 306
Coeff. of linear therm. expansion, parallel	110	E-6/K	ISO 11359-1/-2
Flammability			
Burning Behav. at 1.5mm nom. thickn.	НВ	class	UL 94
Thickness tested		mm	UL 94
Burning Behav. at thickness h		class	UL 94
Thickness tested	3.00		UL 94
UL recognition	yes		UL 94

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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	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	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/m ³	ISO 1183

Injection

Drying Temperature	100 - 120 °C	2
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	2
Back pressure	2 MI	Pa
Injection speed	slow	

Characteristics

Additives Release agent

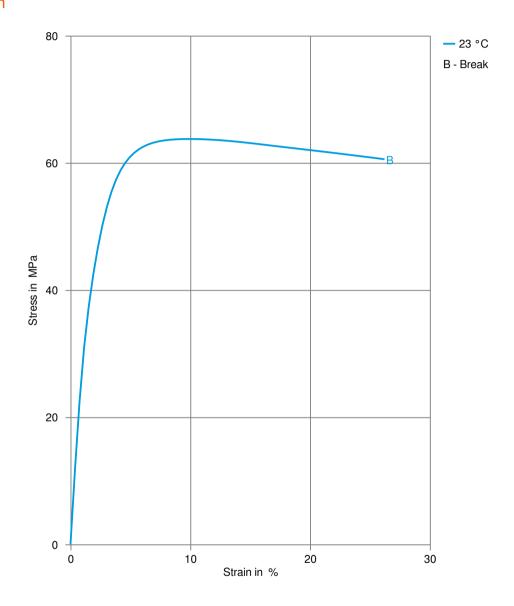
Additional information

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

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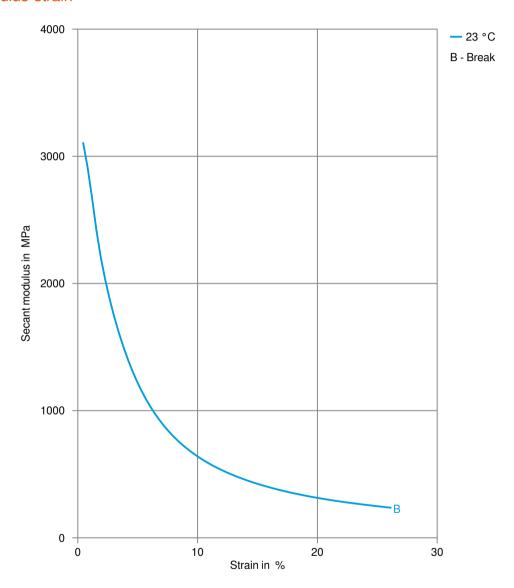
Stress-strain



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Secant modulus-strain



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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.

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