

Chemical abbreviation according to ISO 1043-1: POM Molding compound ISO 29988- POM-K, M-GNR, 03-002 POM copolymer Standard-Injection molding type with high rigidity, hardness and toughness; good chemical resistance to solvents, fuel and strong alkalis as well as good hydrolysis resistance; high resistance to thermal and oxidative degradation. The products are in compliance with EU regulations (EC) No 1935/2004, (EC) No 2023/2006 and (EU) 10/2011, USA FDA 21 CFR Titles 174 – 199, and Chinese food contact regulations GB4806.1, GB31603 and GB9685.

Rheological properties

Till cological properties			
Melt volume-flow rate	8	cm ³ /10min	ISO 1133
Temperature	190	°C	
Load	2.16	kg	
Moulding shrinkage, parallel	2.0	%	ISO 294-4, 2577
Moulding shrinkage, normal	1.9	%	ISO 294-4, 2577
Typical mechanical properties			
Tensile Modulus	2850	MPa	ISO 527-1/-2
Yield stress, 50mm/min		MPa	ISO 527-1/-2
Yield strain, 50mm/min		%	ISO 527-1/-2
Nominal strain at break		%	ISO 527-1/-2
Flexural Modulus		MPa	ISO 178
Charpy impact strength, 23°C	220 ^[P]	kJ/m²	ISO 179/1eU
Charpy impact strength, -30 °C		kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	6.5	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	6	kJ/m²	ISO 179/1eA
Poisson's ratio	0.399		
[P]: Partial Break			
Thermal properties			
Melting temperature, 10°C/min	166	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	104		ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	160		ISO 75-1/-2
Vicat softening temperature, 50°C/h, 50N	150		ISO 306
Coeff. of linear therm. expansion, parallel		E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal		E-6/K	ISO 11359-1/-2
Thermal conductivity of melt		W/(m K)	Internal
Eff. thermal diffusivity	4.85E-8	` '	Internal
Spec. heat capacity of melt	2210	J/(kg K)	Internal
Electrical properties			
Relative permittivity, 100Hz	4		IEC 62631-2-1
Relative permittivity, 1MHz	4		IEC 62631-2-1
Dissipation factor, 100Hz	· ·	E-4	IEC 62631-2-1
Dissipation factor, 1MHz		E-4	IEC 62631-2-1
Volume resistivity		Ohm.m	IEC 62631-3-1

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Internal

HOSTAFORM® C 9021 FC

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	1410 kg/m³	ISO 1183
Density of melt	1200 kg/m ³	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	4	MPa
Injection speed	slow-medium	
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.

Melt temperature 190-210 °C Mould temperature 80-120 °C

Film extrusion Standard extruders with grooved feed zone and short compression

screws (minimum 25 D) will fit.

Melt temperature 180-190 °C

Other extrusion

Standard extruders with grooved feed zone and short compression

screws (minimum 25 D) will fit.

Melt temperature 180-190 °C

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Sheet extrusion

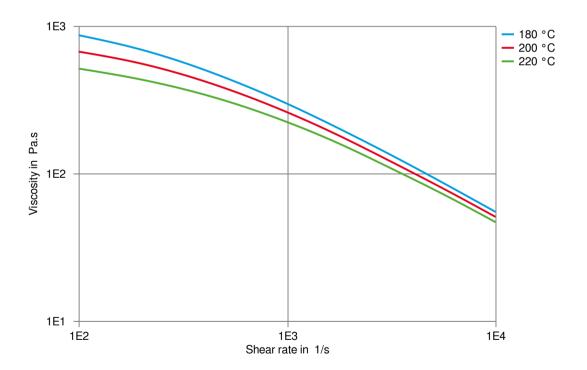
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Standard extruders with grooved feed zone and short compression screws (minimum 25 D) will fit.

Melt temperature 180-190 °C

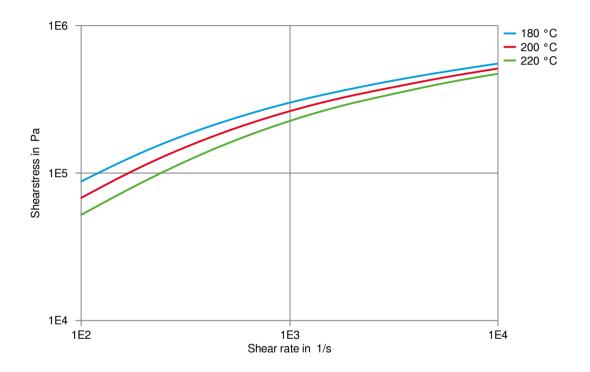
Viscosity-shear rate



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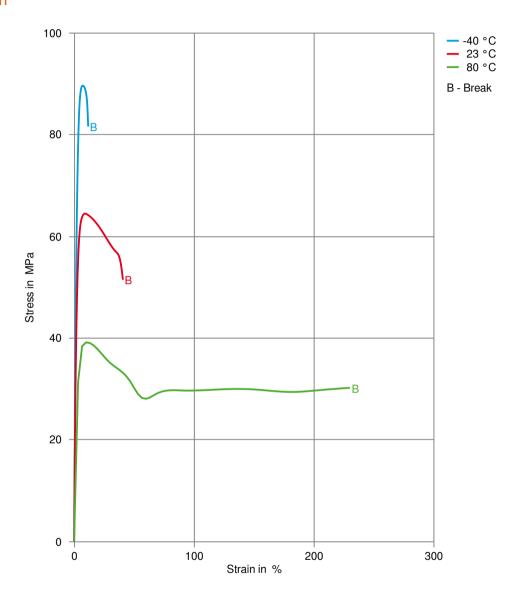
Shearstress-shear rate



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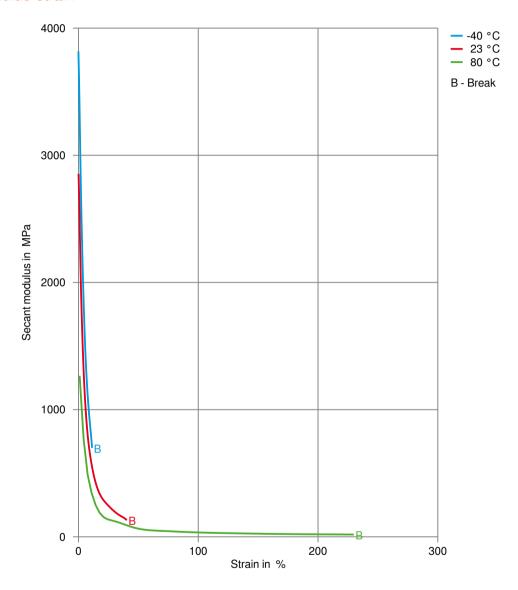
Stress-strain



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Secant modulus-strain



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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.

Melt temperature 190-210 °C Mould temperature 80-120 °C

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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