

Product Texts

Chemical abbreviation according to ISO 1043-1: POM Molding compound ISO 29988- POM-K, M-GNR, 05-002 POM copolymer Very easy flowing Injection molding type with high rigidity and hardness; good chemical resistance to solvents, fuel and strong alkalis as well as good hydrolysis resistance; high resistance to thermal and oxidative degradation. Monomers and additives are listed in EU-Regulation (EU) 10/2011 FDA compliant according to 21 CFR 177.2470 UL-registration for all colours and a thickness more than 1.5 mm as UL 94 HB, temperature index UL 746 B electrical 110°C, mechanical 90°C. Burning rate ISO 3795 and FMVSS 302 < 75 mm/min for a thickness more than 1 mm. Ranges of applications: thin-walled molded parts with unfavourable flow-path-wall thickness relation; multicavity moulds; complicated precision molded parts; short cycle time. FDA = Food and Drug Administration (USA) FMVSS = Federal Motor Vehicle Safety Standard (USA) UL = Underwriters Laboratories (USA)

Flammability @1.6mm nom. thickn.	HB	-
Flammability at thickness h (3 mm)	HB	UL recognition (h)

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
^[C] Melt volume-flow rate, MVR	24	cm ³ /10min	ISO 1133
Temperature	190	°C	-
Load	2.16	kg	-
^[C] Molding shrinkage, parallel	1.9	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	1.8	%	ISO 294-4, 2577
^[C] Density of melt	1200	kg/m ³	-
^[C] Thermal conductivity of melt	0.155	W/(m K)	-
^[C] Spec. heat capacity of melt	2210	J/(kg K)	-
^[C] Ejection temperature	140	°C	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	2900	MPa	ISO 527
^[C] Yield stress	65	MPa	ISO 527
^[C] Yield strain	7.5	%	ISO 527
^[C] Nominal strain at break	17	%	ISO 527
^[C] Charpy impact strength, +23°C	170	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	170	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	5.5	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	5.5	kJ/m ²	ISO 179/1eA

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	166	°C	ISO 11357-1/-3
^[C] Temp. of deflection under load, 1.80 MPa	106	°C	ISO 75-1/-2
^[C] Coeff. of linear therm. expansion, parallel	110	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
^[C] Burning Behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	3.0	mm	-
Yellow Card available	yes	-	-

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 100Hz	4	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	4	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	25	E-4	IEC 62631-2-1

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POM

Celanese

[C] Dissipation factor, 1MHz	50	E-4	IEC 62631-2-1
[C] Volume resistivity	1E12	Ohm*m	IEC 62631-3-1
[C] Surface resistivity	1E14	Ohm	IEC 62631-3-2
[C] Electric strength	35	kV/mm	IEC 60243-1

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
[C] Water absorption	0.65	%	Sim. to ISO 62
[C] Humidity absorption	0.2	%	Sim. to ISO 62
[C] Density	1410	kg/m ³	ISO 1183

[C]: CAMPUS

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	100 - 120	°C	-
Pre-drying - Time	3 - 6	h	-
Processing humidity	≤0.2	%	-
Melt temperature	190 - 210	°C	-
Mold temperature	80 - 120	°C	-

Characteristics**Processing**

Injection Molding

Delivery form

Pellets

Additives

Release agent

Features

Thermal Stability, Copolymer

Chemical Resistance

Alkali Resistance, Solvent Resistance, Hydrolytically Stable, Oxidation Resistance

Certifications

Food contact, Food approval 10/2011, Food approval FDA 21 CFR, Drinking water contact

Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

Other text information**Injection molding**

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 %

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

Conditioning e.g. moisturizing is not necessary.