

Product Texts

Chemical abbreviation according to ISO 1043-1: POM Molding compound ISO 29988- POM-K, M-GNR, 02-002, GB30 POM copolymer Injection molding type, reinforced with ca. 30 % glass spheres; high resistance to thermal and oxidative degradation. UL-registration in natural and a thickness more than 0.81 mm, in black and a thickness more than 1.0 mm as UL94 HB, temperature index UL 746 B for a thickness of 1.57 mm, 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 low-warpage and dimensionally stable molded parts with higher rigidity and hardness. FMVSS = Federal Motor Vehicle Safety Standard (USA) UL = Underwriters Laboratories (USA)

Flammability @1.6mm nom. HB
thickn.

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Flammability at thickness h (0.81 HB
mm)

UL recognition (h)

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
^[C] Melt volume-flow rate, MVR	7.5	cm ³ /10min	ISO 1133
Temperature	190	°C	-
Load	2.16	kg	-
^[C] Molding shrinkage, parallel	1.7	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	1.4	%	ISO 294-4, 2577
^[C] Density of melt	1370	kg/m ³	-
^[C] Thermal conductivity of melt	0.225	W/(m K)	-
^[C] Spec. heat capacity of melt	1780	J/(kg K)	-
^[C] Eff. thermal diffusivity	7.3E-8	m ² /s	-
^[C] Ejection temperature	140	°C	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	3900	MPa	ISO 527
^[C] Yield stress	38	MPa	ISO 527
^[C] Yield strain	6	%	ISO 527
^[C] Nominal strain at break	12	%	ISO 527
^[C] Charpy impact strength, +23°C	40	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	40	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	3	kJ/m ²	ISO 179/1eA
^[C] Charpy notched impact strength, -30°C	3	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	112	°C	ISO 75-1/-2
^[C] Coeff. of linear therm. expansion, parallel	90	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	90	E-6/K	ISO 11359-1/-2
^[C] Burning Behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.6	mm	-
^[C] Burning Behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	0.8	mm	-
Yellow Card available	yes	-	-

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 100Hz	5	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	4.5	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	300	E-4	IEC 62631-2-1

[C] Dissipation factor, 1MHz	80	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	40	kV/mm	IEC 60243-1

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
[C] Water absorption	0.9	%	Sim. to ISO 62
[C] Humidity absorption	0.12	%	Sim. to ISO 62
[C] Density	1590	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

Chemical Resistance

Oxidation Resistance

Delivery form

Pellets, Black, Natural Color

Certifications

Drinking water contact

Additives

Release agent

Applications

Automotive

Features

Low Warpage, Thermal Stability, Copolymer

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.