

HOSTAFORM® C 9021 GV1/20 XGM | POM | Tribological

Description

Chemical abbreviation according to ISO 1043-1: POM
Molding compound ISO 9988- POM-K, M-GS2, 02-003, GF20

POM copolymer

Injection molding type, reinforced with ca 20 % glass fibers; includes PTFE for improved wear performance; high resistance to thermal and oxidative degradation; reduced thermal expansion and shrinkage.

Ranges of applications: For molded parts requiring improved low wear performance while exhibiting very high strength and rigidity as well as higher hardness.

FMVSS = Federal Motor Vehicle Safety Standard (USA)

Physical properties	Value	Unit	Test Standard
Density	1570	kg/m ³	ISO 1183
Melt volume rate (MVR)	4	cm ³ /10min	ISO 1133
MVR test temperature	190	°C	ISO 1133
MVR test load	2.16	kg	ISO 1133

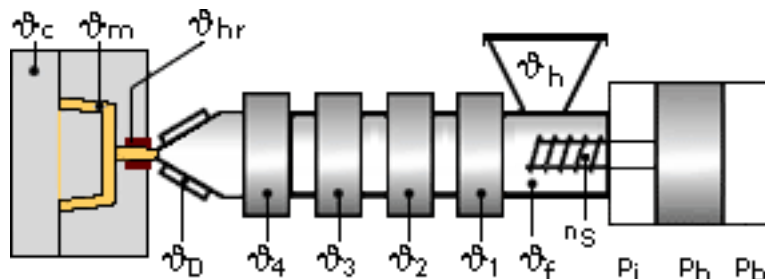
Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	7700	MPa	ISO 527-2/1A
Tensile stress at break (5mm/min)	100	MPa	ISO 527-2/1A
Tensile strain at break (5mm/min)	2.5	%	ISO 527-2/1A
Flexural modulus (23°C)	7400	MPa	ISO 178
Charpy notched impact strength @ 23°C	5.5	kJ/m ²	ISO 179/1eA
Charpy notched impact strength @ -30°C	5.5	kJ/m ²	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
Melting temperature (10°C/min)	166	°C	ISO 11357-1,-2,-3
Coeff.of linear therm. expansion (parallel)	0.3	E-4/°C	ISO 11359-2
Coeff.of linear therm. expansion (normal)	0.9	E-4/°C	ISO 11359-2

Test specimen production	Value	Unit	Test Standard
Processing conditions acc. ISO	9988	-	Internal

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Typical injection moulding processing conditions



Pre Drying:

Necessary low maximum residual moisture content: 0.15%

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.

The product can then be stored in standard conditions until processed.

Drying time: 3 - 4 h

Drying temperature: 100 - 120 °C

Temperature:

	ϕManifold	ϕMold	ϕMelt	ϕNozzle	ϕZone4	ϕZone3	ϕZone2	ϕZone1	ϕFeed	ϕHopper
min (°C)	190	80	190	190	190	190	180	170	60	20
max (°C)	210	120	210	210	210	200	190	180	80	30

Pressure:

	Inj press	Hold press	Back pressure
min (bar)	600	600	0
max (bar)	1200	1200	5

Speed:

Injection speed: slow

Screw speed

	16	25	40	55	75
Screw diameter (mm)	16	25	40	55	75
Screw speed (RPM)	-	150	100	70	-

Injection Molding

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

Melt temperature	190-230 °C
Mould temperature	80-120 °C

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Properties of molded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design, processing conditions and environmental exposure. Any determination of the suitability of a particular material and part design for any use contemplated by the users and the manner of such use is the sole responsibility of the users, who must assure themselves that the material as subsequently processed meets the needs of their particular product or use.

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