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**HOSTAFORM® C 9021 GV1/30 GT | POM | Tribological**


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**Description**


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Chemical abbreviation according to ISO 1043-1: POM  
Molding compound ISO 9988- POM-K, M-GNS2, 01-003, GF26

POM copolymer

Injection molding type, reinforced with ca 26 % glass fibers; 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.

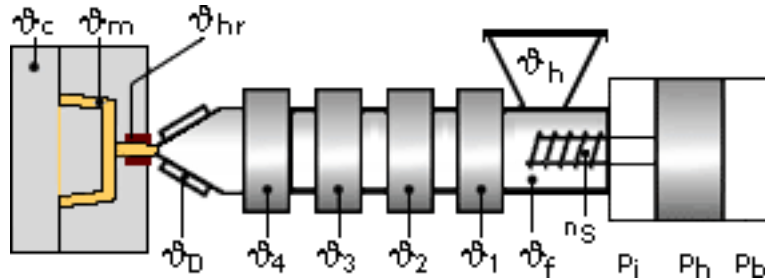
FMVSS = Federal Motor Vehicle Safety Standard (USA)  
UL = Underwriters Laboratories (USA)

<b>Physical properties</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Density	<b>1540</b>	kg/m <sup>3</sup>	ISO 1183
Melt volume rate (MVR)	<b>2.5</b>	cm <sup>3</sup> /10min	ISO 1133
MVR test temperature	<b>190</b>	°C	ISO 1133
MVR test load	<b>2.16</b>	kg	ISO 1133
Mold shrinkage - parallel	<b>0.3</b>	%	ISO 294-4
Mold shrinkage - normal	<b>0.8</b>	%	ISO 294-4

<b>Mechanical properties</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Tensile modulus (1mm/min)	<b>8700</b>	MPa	ISO 527-2/1A
Tensile stress at break (5mm/min)	<b>110</b>	MPa	ISO 527-2/1A
Tensile strain at break (5mm/min)	<b>2.5</b>	%	ISO 527-2/1A
Flexural modulus (23°C)	<b>8400</b>	MPa	ISO 178
Charpy notched impact strength @ 23°C	<b>5.5</b>	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength @ -30°C	<b>5.5</b>	kJ/m <sup>2</sup>	ISO 179/1eA

<b>Thermal properties</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Melting temperature (10°C/min)	<b>166</b>	°C	ISO 11357-1,-2,-3
DTUL @ 1.8 MPa	<b>159</b>	°C	ISO 75-1/-2
Coeff.of linear therm. expansion (parallel)	<b>0.3</b>	E-4/°C	ISO 11359-2
Coeff.of linear therm. expansion (normal)	<b>0.9</b>	E-4/°C	ISO 11359-2

<b>Test specimen production</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Processing conditions acc. ISO	<b>9988</b>	-	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	20

Above pressures, including back pressure, are given as specific or plastic pressures. The back pressure on Hostaform® and Celcon® POM materials should be as low as possible, just enough to remove air from the pellets during feeding.

**Speed:**
**Injection speed: slow**
**Screw speed**

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) plasticating screws will fit.

Melt temperature	190-210 °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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