

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

Description

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)

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

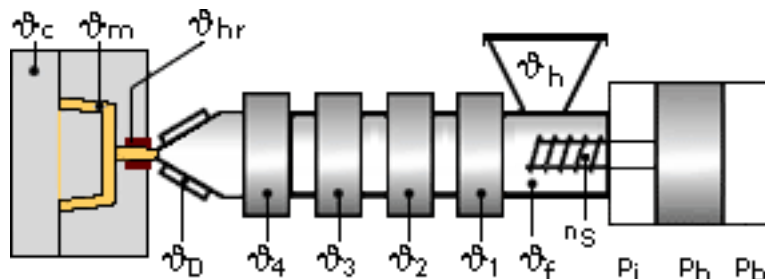
Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	8700	MPa	ISO 527-2/1A
Tensile stress at break (5mm/min)	110	MPa	ISO 527-2/1A
Tensile strain at break (5mm/min)	2.5	%	ISO 527-2/1A
Flexural modulus (23°C)	8400	MPa	ISO 178
Charpy notched impact strength @ 23°C	5.5	kJ/m ²	ISO 179/1eA
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
DTUL @ 1.8 MPa	159	°C	ISO 75-1/-2
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

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

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

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

Contact Information

Americas

Ticona North American Headquarters
Product Information Service
8040 Dixie Highway
Florence, KY 41042
USA
Tel.: +1-800-833-4882
Tel.: +1-859-372-3244
email: prodinfo@ticona.com
Ticona on the web: www.ticona.com

Customer Service

Tel.: +1-800-526-4960
Tel.: +1-859-372-3214
Fax: +1-859-372-3125

Europe

Ticona GmbH
Information Service
Tel.: +49 (0) 180-5842662 (Germany)
+49 (0) 69-30516299 (Europe)
Fax: +49 (0) 180-2021202 (Germany & Europe)
email: infoservice@ticona.de
Internet: www.ticona.com

General Disclaimer

NOTICE TO USERS: Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colorants or other additives may cause significant variations in data values.

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.

To the best of our knowledge, the information contained in this publication is accurate; however, we do not assume any liability whatsoever for the accuracy and completeness of such information. The information contained in this publication should not be construed as a promise or guarantee of specific properties of our products. It is the sole responsibility of the users to investigate whether any existing patents are infringed by the use of the materials mentioned in this publication.

Moreover, there is a need to reduce human exposure to many materials to the lowest practical limits in view of possible adverse effects. To the extent that any hazards may have been mentioned in this publication, we neither suggest nor guarantee that such hazards are the only ones that exist. We recommend that persons intending to rely on any recommendation or to use any equipment, processing technique or material mentioned in this publication should satisfy themselves that they can meet all applicable safety and health standards.

We strongly recommend that users seek and adhere to the manufacturer's current instructions for handling each material they use, and entrust the handling of such material to adequately trained personnel only. Please call the telephone numbers listed (+49 (0) 69 30516299 for Europe and +1 859-372-3244 for the Americas) for additional technical information. Call Customer Services for the appropriate Materials Safety Data Sheets (MSDS) before attempting to process our products.

The products mentioned herein are not intended for use in medical or dental implants.

© Copyright 2007, Ticona, all rights reserved. (Pub. 26-September-2013)