HOSTAFORM® C 9021 GV1/20 XGM

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Chemical abbreviation according to ISO 1043-1: (POM+PTFE)-GF20 Molding compound ISO 29988- 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)

Product information

Resin Identification	(POM+PTFE)-GF20	ISO 1043
Part Marking Code	>(POM+PTFE)-GF20<	ISO 11469

Rheological properties

Melt volume-flow rate	4	cm^3/10min	ISO 1133
Temperature	374	°F	
Load	4.76	lb	
Molding shrinkage, parallel	0.7	%	ISO 294-4, 2577
Molding shrinkage, normal	1.1	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	1.12E6	psi	ISO 527-1/-2
Tensile stress at break, 5mm/min	14500	psi	ISO 527-1/-2
Tensile strain at break, 5mm/min	2.5	%	ISO 527-1/-2
Flexural modulus	1.07E6	psi	ISO 178
Charpy notched impact strength, 23°C	2.62	ftlb/in^2	ISO 179/1eA
Charpy notched impact strength, -30°C	2.62	ftlb/in^2	ISO 179/1eA
Hardness, Rockwell, M-scale	86		ISO 2039-2

Thermal properties

Melting temperature, 10°C/min	331	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	316	°F	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	0.17	E-4/°F	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	0.5	E-4/°F	ISO 11359-1/-2

Physical/Other properties

Density	0.0567	lb/in^3	ISO 1183

Injection

Drying Recommended	no	
Drying Temperature	212	°F
Drying Time, Dehumidified Dryer	3 - 4	h
Processing Moisture Content	≤0.2	%
Melt Temperature Optimum	392	°F
Min. melt temperature	374	°F
Max. melt temperature	410	°F
Max. screw tangential speed	≤0.3	m/s
Mold Temperature Optimum	212	°F
Min. mold temperature	176	°F

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Max. mold temperature	248	°F
Hold pressure range	8700 - 17400	psi
Hold Pressure Time (h is the max. wall thickness of the part in mm)	$2h^2$-3	s
Back pressure	290	psi

Characteristics

Processing	Injection Molding
Additives	Release agent
Special characteristics	Low wear / Low friction

Additional information

Injection molding

Preprocessing

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 %

Processing

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

Postprocessing

Conditioning e.g. moisturizing is not necessary.

Processing Notes

Pre-Drying

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.

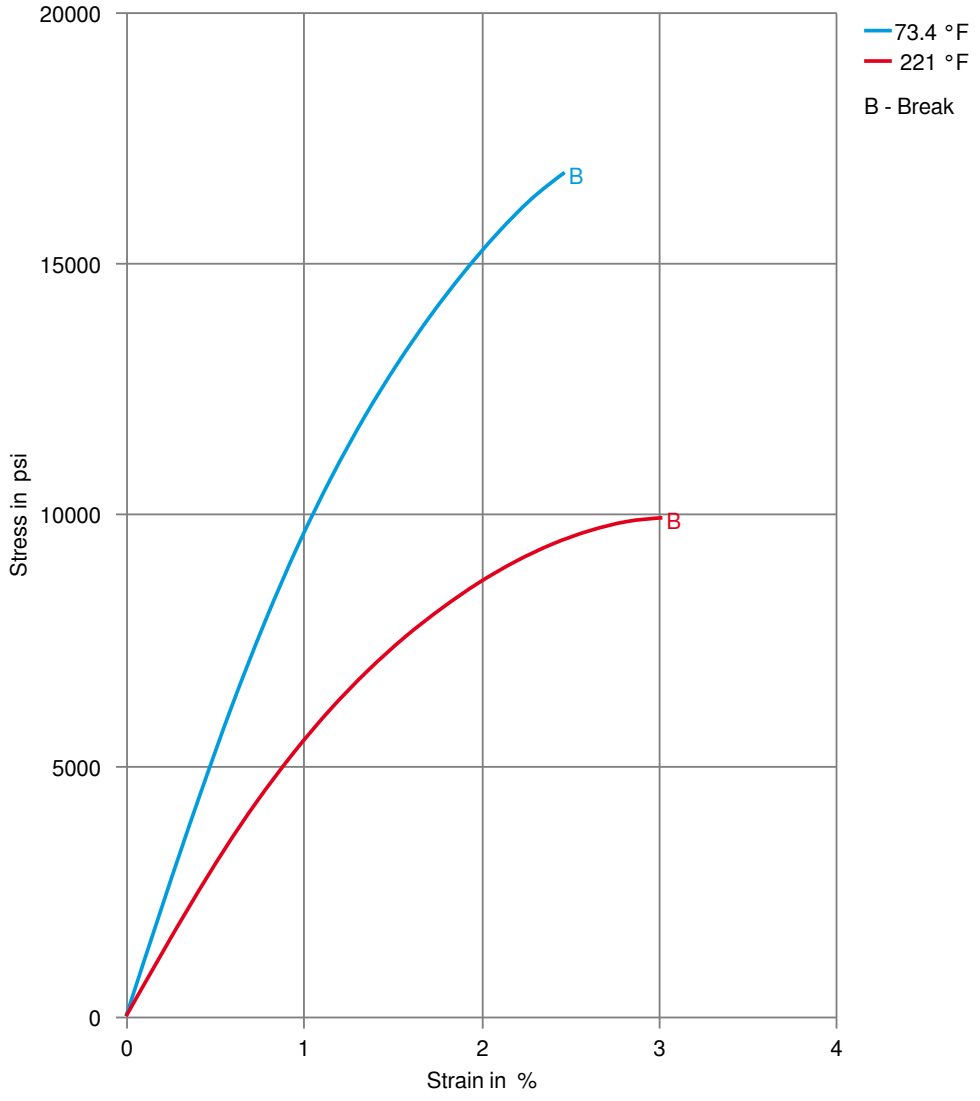
Storage

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

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Stress-strain

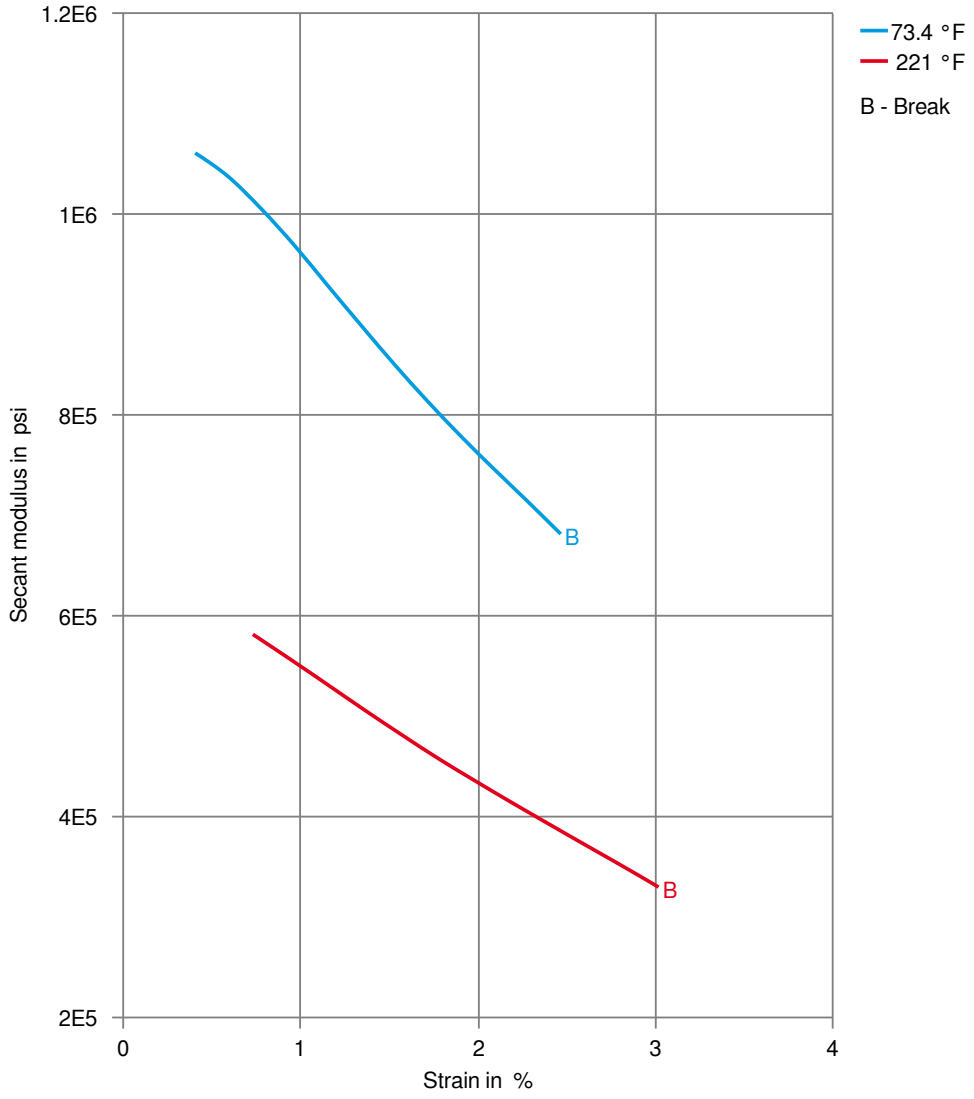


Revised: 2025-07-10 Source: Celanese Materials Database

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Secant modulus-strain



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