Celanese
The chemistry inside innovation™

HOSTAFORM® C 9021 GV1/30 GT

26% glass fiber reinforced; specialty low wear grade based on UHMWPE
Chemical abbreviation according to ISO 1043-1: POM Molding compound ISO 29988- 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)

Product information

Part Marking Code	POM		ISO 11469

Rheological properties

Melt volume-flow rate	2.5	cm^3/10min	ISO 1133
Temperature	190	°C	
Load	2.16	kg	
Moulding shrinkage, parallel	0.3	%	ISO 294-4, 2577
Moulding shrinkage, normal	0.8	%	ISO 294-4, 2577

Typical mechanical properties

Tensile Modulus	8700	MPa	ISO 527-1/-2
Stress at break, 5mm/min	110	MPa	ISO 527-1/-2
Strain at break, 5mm/min	2.5	%	ISO 527-1/-2
Flexural Modulus	7700	MPa	ISO 178
Flexural Strength	110	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

Melting temperature, 10°C/min	166	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	159	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, parallel	30	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	90	E-6/K	ISO 11359-1/-2

Other properties

Density	1540	kg/m^3	ISO 1183

Injection

Drying Temperature	100 - 120	°C
Drying Time, Dehumidified Dryer	3 - 4	h
Processing Moisture Content	0.15	%
Screw tangential speed	0.2 - 0.21	m/s
Max. mould temperature	80 - 120	°C
Back pressure	2	MPa
Injection speed	slow	

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Characteristics

Additives	Release agent

Additional information

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

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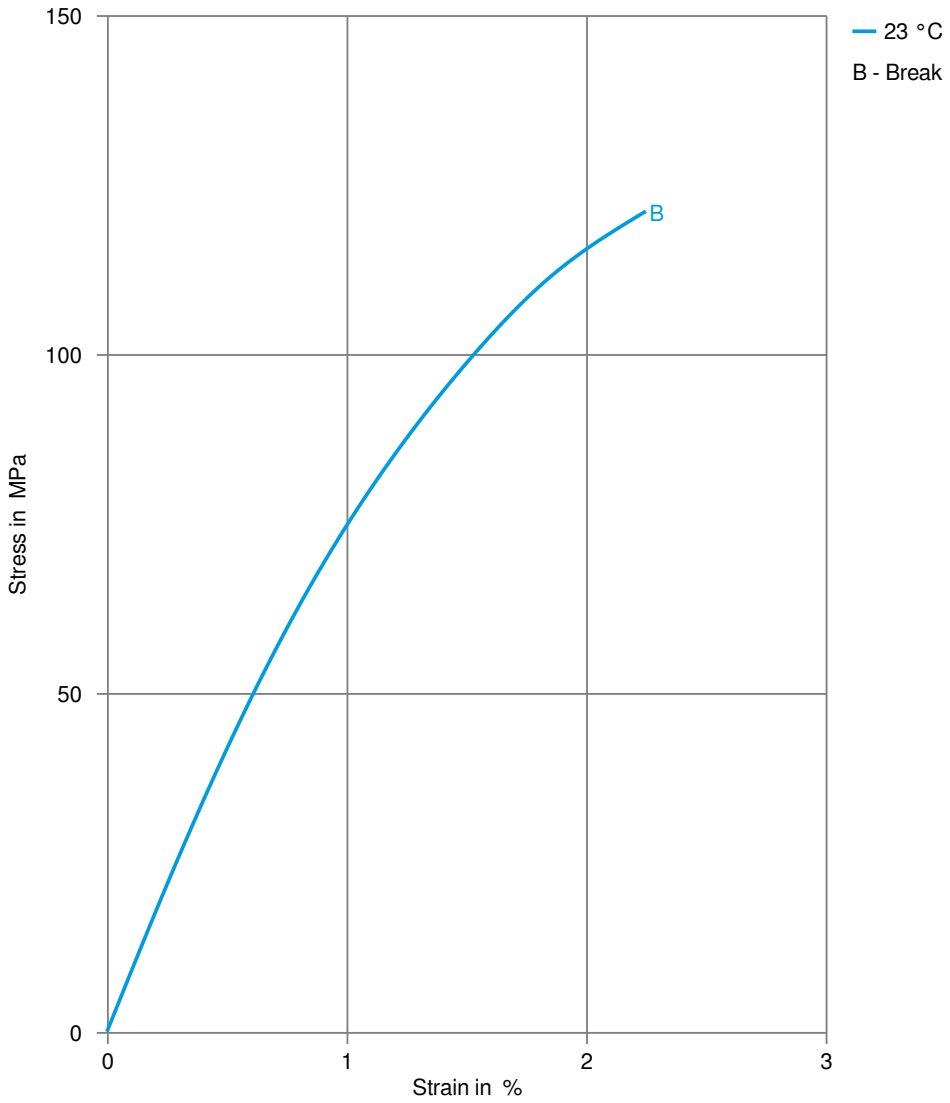
Stress-strain



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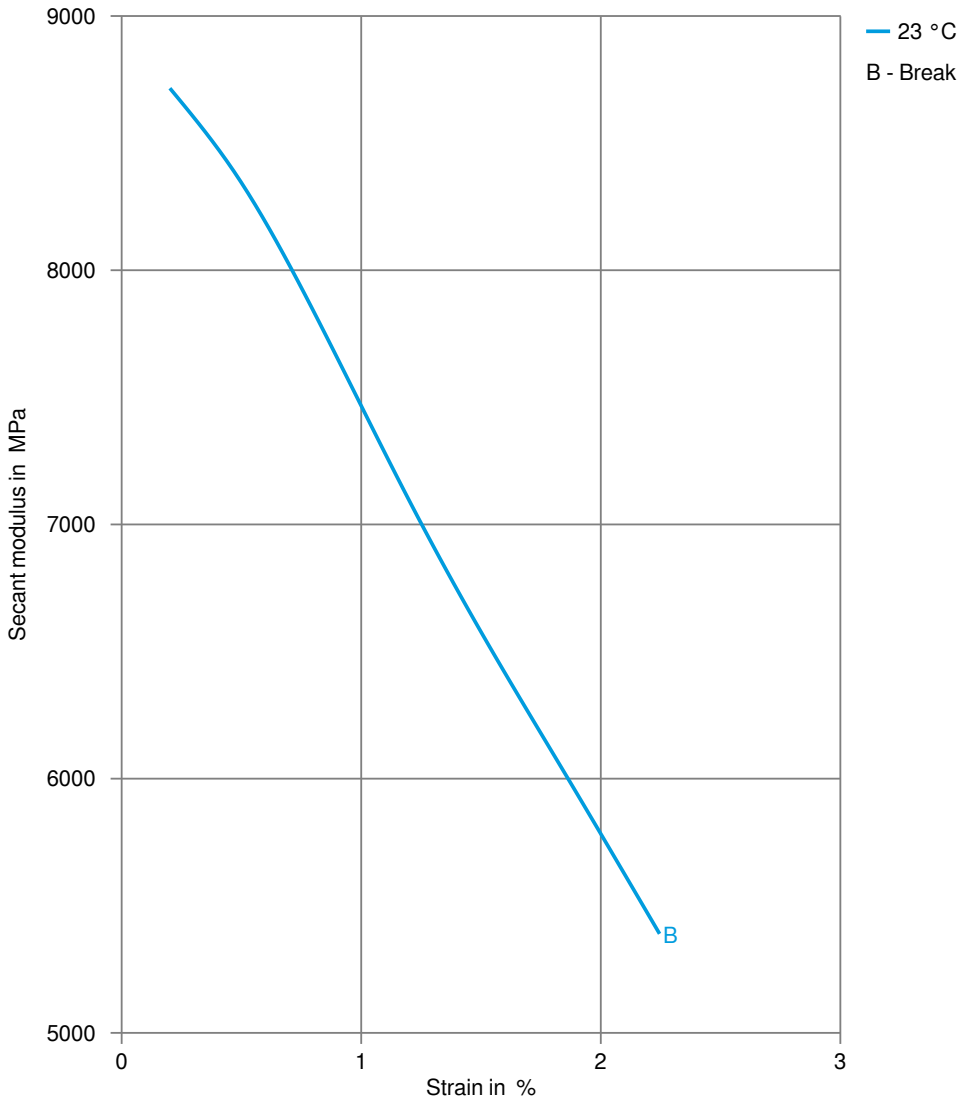
Secant modulus-strain



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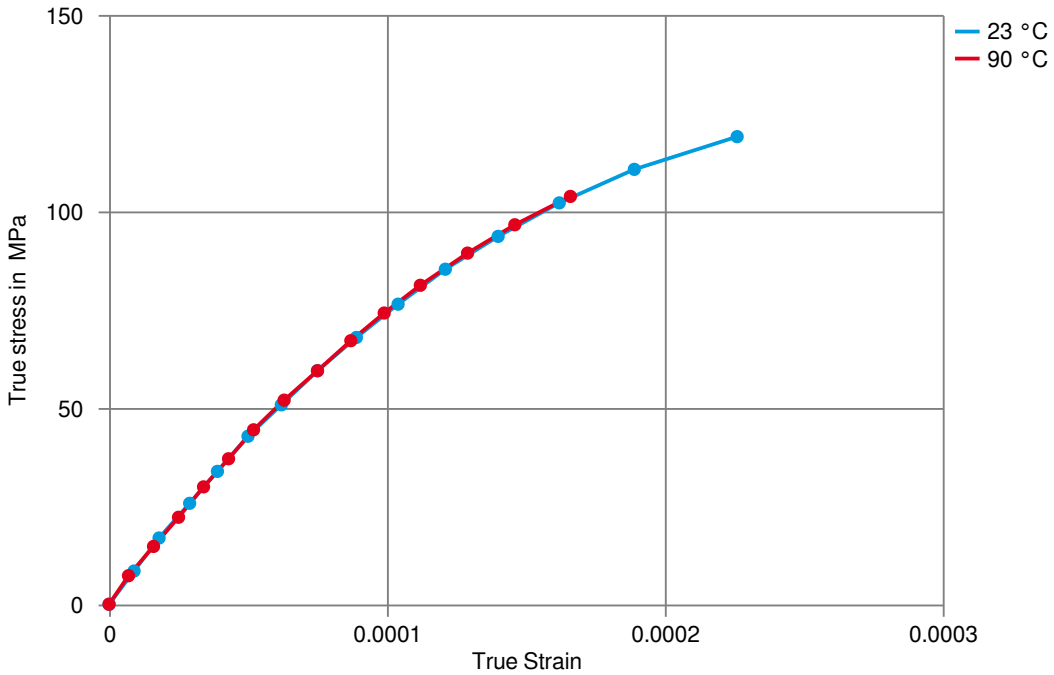
True stress-strain



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Processing Texts

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.
Longer pre-drying times/storage	The product can then be stored in standard conditions until processed.
Injection molding	Standard injection moulding machines with three phase (15 to 25 D) plasticating screws will fit.
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 %
Injection molding Postprocessing	Conditioning e.g. moisturizing is not necessary.