Celanese
The chemistry inside innovation™

HOSTAFORM® C 9021 GV1/30

Injection molding grade; reinforced with ca. 26 % glass fibers
Chemical abbreviation according to ISO 1043-1: POM Molding compound ISO 29988- POM-K, M-GNR, 02-003, GF26 POM copolymer Injection molding type, reinforced with ca 26 % glass fibers; high resistance to thermal and oxidative degradation; reduced thermal expansion and shrinkage. UL-registration for all colours and a thickness more than 1.57 mm as UL 94 HB, temperature index UL 746 B electrical 105 °C, mechanical 95 °C (tensile impact) and 100 °C (tensile). Burning rate ISO 3795 and FMVSS 302 < 100 mm/min and a thickness more than 1 mm thickness. Ranges of applications: For molded parts with 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	4	cm^3/10min	ISO 1133
Temperature	190	°C	
Load	2.16	kg	
Moulding shrinkage, parallel	0.6	%	ISO 294-4, 2577
Moulding shrinkage, normal	1.0	%	ISO 294-4, 2577

Typical mechanical properties

Tensile Modulus	9200	MPa	ISO 527-1/-2
Stress at break, 5mm/min	135	MPa	ISO 527-1/-2
Strain at break, 5mm/min	2.5	%	ISO 527-1/-2
Flexural Modulus	7800	MPa	ISO 178
Flexural Strength	165	MPa	ISO 178
Shear Modulus	1770	MPa	ISO 6721
Tensile creep modulus, 1h	7700	MPa	ISO 899-1
Tensile creep modulus, 1000h	5400	MPa	ISO 899-1
Charpy impact strength, 23°C	30	kJ/m^2	ISO 179/1eU
Charpy impact strength, -30°C	35	kJ/m^2	ISO 179/1eU
Charpy notched impact strength, 23°C	8	kJ/m^2	ISO 179/1eA
Charpy notched impact strength, -30°C	8	kJ/m^2	ISO 179/1eA
Ball indentation hardness, H 358/30	200	MPa	ISO 2039-1
Poisson's ratio	0.392		

Thermal properties

Melting temperature, 10°C/min	166	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	160	°C	ISO 75-1/-2
Temp. of deflection under load, 8 MPa	125	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h, 50N	158	°C	ISO 306
Coeff. of linear therm. expansion, parallel	40	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	80	E-6/K	ISO 11359-1/-2
Thermal conductivity of melt	0.215	W/(m K)	Internal
Eff. thermal diffusivity	6.51E-8	m^2/s	Internal

HOSTAFORM® C 9021 GV1/30

Spec. heat capacity of melt	1810	J/(kg K)	Internal

Flammability

Burning Behav. at 1.5mm nom. thickn.	HB	class	UL 94
Thickness tested	1.6	mm	UL 94
Burning Behav. at thickness h	HB	class	UL 94
Thickness tested	3.18	mm	UL 94
UL recognition	yes		UL 94

Electrical properties

Relative permittivity, 100Hz	4.3		IEC 62631-2-1
Relative permittivity, 1MHz	4.3		IEC 62631-2-1
Dissipation factor, 100Hz	30	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	60	E-4	IEC 62631-2-1
Volume resistivity	1E12	Ohm.m	IEC 62631-3-1
Surface resistivity	1E14	Ohm	IEC 62631-3-2
Electric strength	40	kV/mm	IEC 60243-1
Comparative tracking index	PLC 0	PLC	UL 746A

Other properties

Humidity absorption, 2mm	0.17	%	Sim. to ISO 62
Water absorption, 2mm	0.9	%	Sim. to ISO 62
Density	1600	kg/m³	ISO 1183
Density of melt	1350	kg/m³	Internal

Injection

Drying Temperature	100 - 120	°C	
Drying Time, Dehumidified Dryer	3 - 4	h	
Processing Moisture Content	0.15	%	
Melt Temperature Optimum	200	°C	Internal
Screw tangential speed	0.2 - 0.21	m/s	
Max. mould temperature	80 - 120	°C	
Back pressure	2	MPa	
Injection speed	slow		
Ejection temperature	140	°C	Internal

Characteristics

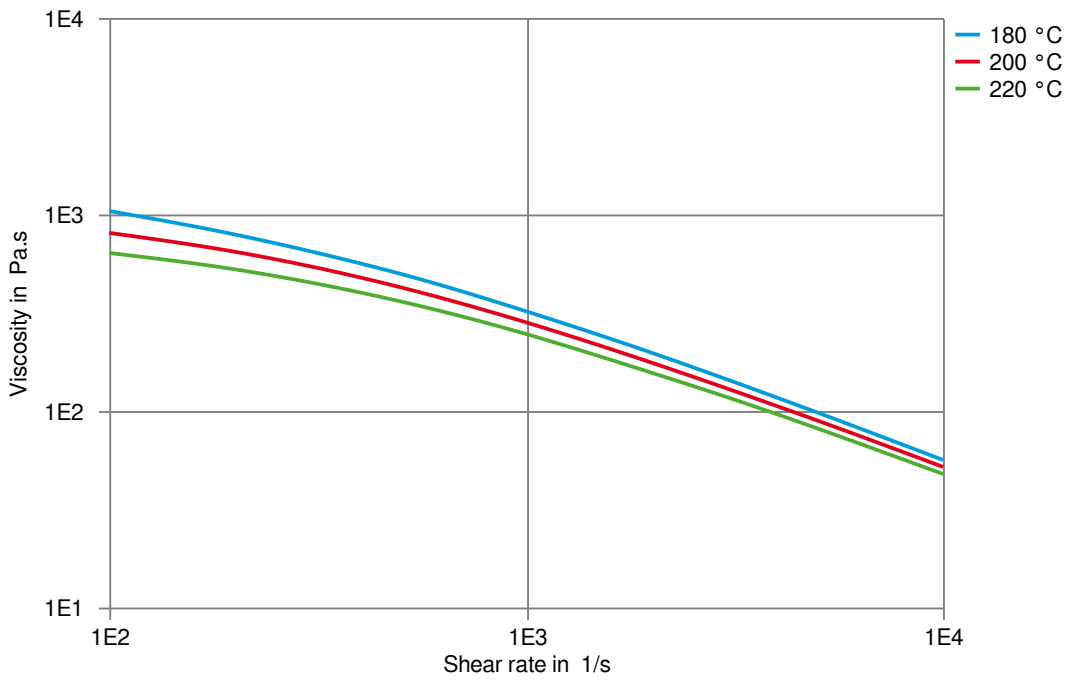
Additives	Release agent

HOSTAFORM® C 9021 GV1/30

Additional information

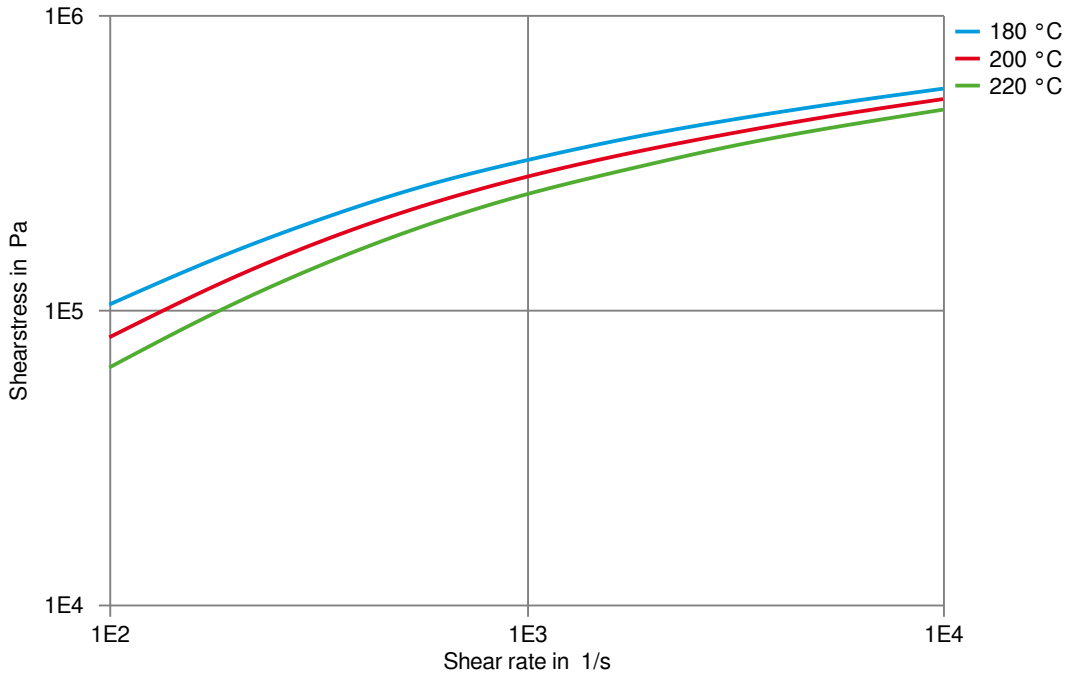
Injection molding	Standard injection moulding machines with three phase (15 to 25 D) plasticating screws will fit.

Viscosity-shear rate



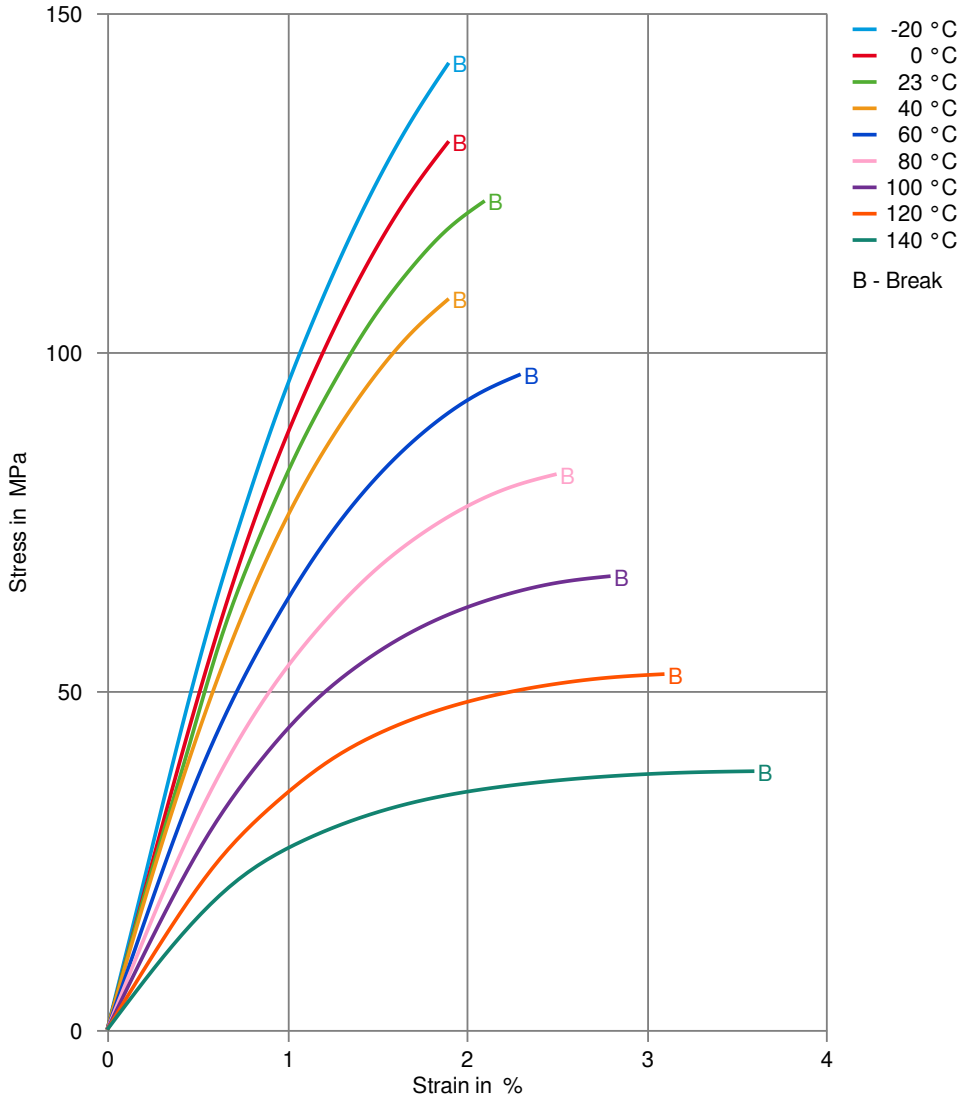
HOSTAFORM® C 9021 GV1/30

Shearstress-shear rate



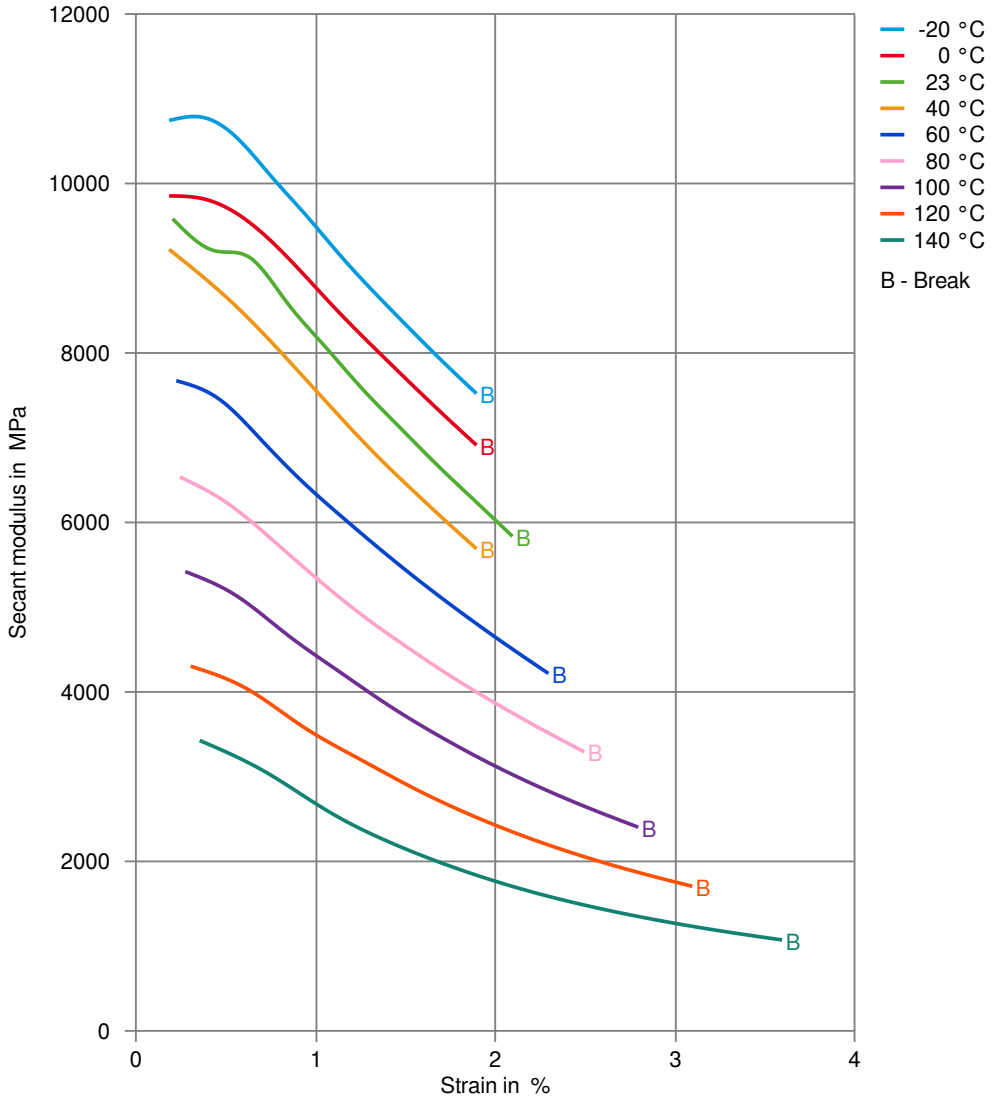
HOSTAFORM® C 9021 GV1/30

Stress-strain



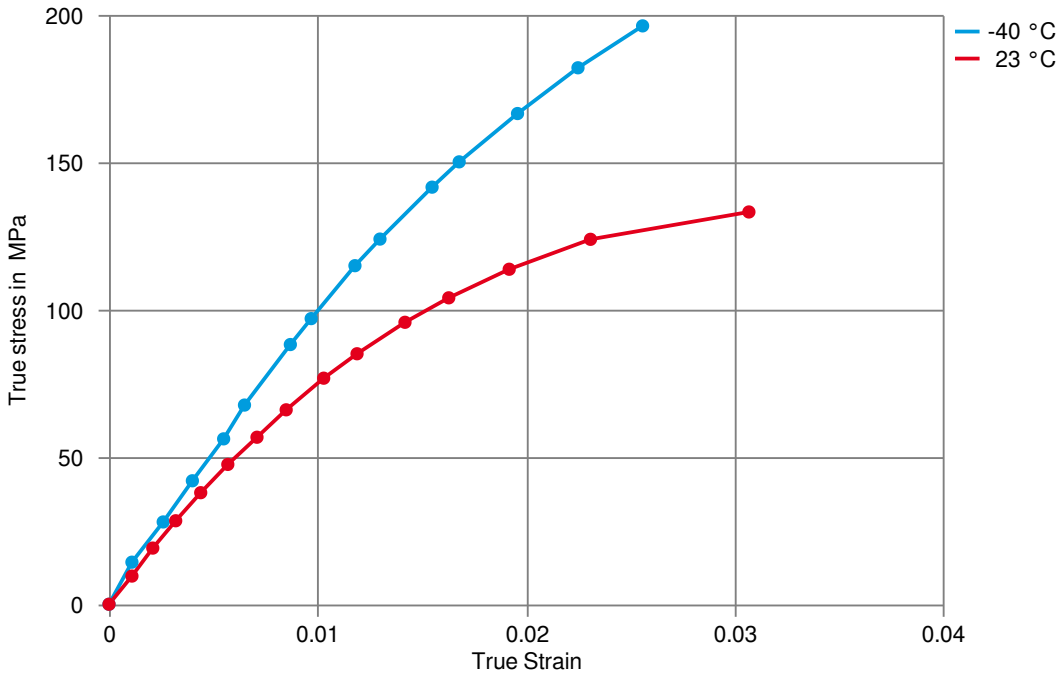
HOSTAFORM® C 9021 GV1/30

Secant modulus-strain



HOSTAFORM® C 9021 GV1/30

True stress-strain



HOSTAFORM® C 9021 GV1/30

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.

Other Approvals

Other Approvals

OEM	Specification	Additional Information
BMW	GS 93016	
Bosch	N28 BN22-X010	Natural & Black
Continental	TST N 055 54.10	
Mercedes-Benz Group (Daimler)	DBL 5403	(5401.00)
Mercedes-Benz Group (Daimler)	DBL 5406	(5406.00)
Mercedes-Benz Group (Daimler)	DBL 5410	(5410.00)
Mercedes-Benz Group (Daimler)	DBL 5420	(5420.00)
GM	GMW17968P-POM-GF25	Natural
Toyota	TSM5606-1	

Celanese
The chemistry inside innovation™

HOSTAFORM® C 9021 GV1/30

Revised: 2023-07-28 Source: Celanese Materials Database