Celanese
The chemistry inside innovation™

HOSTAFORM® C 9021

General purpose injection molding grade
Chemical abbreviation according to ISO 1043-1: POM Molding compound ISO 29988- POM-K, M-GNR, 03-002 POM copolymer Standard-Injection molding type with high rigidity, hardness and toughness; good chemical resistance to solvents, fuel and strong alkalis as well as good hydrolysis resistance; high resistance to thermal and oxidative degradation. Monomers and additives are listed in EU-Regulation (EU) 10/2011 FDA compliant according to 21 CFR 177.2470 UL-registration for all colours and a thickness more than 1.5 mm as UL 94 HB, temperature index UL 746 B electrical 110 °C, mechanical 90 °C. Burning rate ISO 3795 and FMVSS 302 < 75 mm/min for a thickness more than 1 mm. Ranges of applications: automotive engineering, precision engineering, electric and electronical industry, domestic appliances. FDA = Food and Drug Administration (USA) 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	8	cm^3/10min	ISO 1133
Temperature	190	°C	
Load	2.16	kg	
Moulding shrinkage, parallel	2.0	%	ISO 294-4, 2577
Moulding shrinkage, normal	1.9	%	ISO 294-4, 2577

Typical mechanical properties

Tensile Modulus	2850	MPa	ISO 527-1/-2
Yield stress, 50mm/min	64	MPa	ISO 527-1/-2
Yield strain, 50mm/min	9	%	ISO 527-1/-2
Nominal strain at break	30	%	ISO 527-1/-2
Flexural Modulus	2700	MPa	ISO 178
Flexural Stress at 3.5%	72	MPa	ISO 178
Compressive stress at 1% strain	24	MPa	ISO 604
Shear Modulus	1080	MPa	ISO 6721
Tensile creep modulus, 1h	2500	MPa	ISO 899-1
Tensile creep modulus, 1000h	1300	MPa	ISO 899-1
Charpy impact strength, 23°C	220[P]	kJ/m^2	ISO 179/1eU
Charpy impact strength, -30°C	220	kJ/m^2	ISO 179/1eU
Charpy notched impact strength, 23°C	6.5	kJ/m^2	ISO 179/1eA
Charpy notched impact strength, -30°C	6	kJ/m^2	ISO 179/1eA
Ball indentation hardness, H 358/30	144	MPa	ISO 2039-1
Poisson's ratio	0.399		

[P]: Partial Break

Celanese
The chemistry inside innovation™

HOSTAFORM® C 9021

Thermal properties

Melting temperature, 10 °C/min	166	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	104	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	160	°C	ISO 75-1/-2
Vicat softening temperature, 50 °C/h, 50N	150	°C	ISO 306
Coeff. of linear therm. expansion, parallel	110	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	110	E-6/K	ISO 11359-1/-2
Thermal conductivity of melt	0.155	W/(m K)	Internal
Eff. thermal diffusivity	4.85E-8	m^2/s	Internal
Spec. heat capacity of melt	2210	J/(kg K)	Internal

Flammability

Burning Behav. at 1.5mm nom. thickn.	HB	class	UL 94
Thickness tested	1.5	mm	UL 94
Burning Behav. at thickness h	HB	class	UL 94
Thickness tested	3.00	mm	UL 94
UL recognition	yes		UL 94

Electrical properties

Relative permittivity, 100Hz	4		IEC 62631-2-1
Relative permittivity, 1MHz	4		IEC 62631-2-1
Dissipation factor, 100Hz	20	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	50	E-4	IEC 62631-2-1
Dissipation factor, 1GHz	466	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	35	kV/mm	IEC 60243-1
Comparative tracking index	PLC 0	PLC	UL 746A
Relative permittivity, printed circuits and boards, 2.5 GHz	3		IEC 61189-2-721
Relative permittivity, printed circuits and boards, 10 GHz	3.2		IEC 61189-2-721
Dissipation factor, printed circuits and boards, 10 GHz	144	E-4	IEC 61189-2-721

Other properties

Humidity absorption, 2mm	0.2	%	Sim. to ISO 62
Water absorption, 2mm	0.65	%	Sim. to ISO 62
Density	1410	kg/m^3	ISO 1183
Density of melt	1200	kg/m^3	Internal

HOSTAFORM® C 9021

Injection

Drying Temperature	100 - 120	°C	
Drying Time, Dehumidified Dryer	3 - 4	h	
Processing Moisture Content	0.15	%	
Melt Temperature Optimum	205	°C	Internal
Screw tangential speed	0.2 - 0.21	m/s	
Max. mould temperature	80 - 120	°C	
Back pressure	4	MPa	
Injection speed	slow-medium		
Ejection temperature	140	°C	Internal

Characteristics

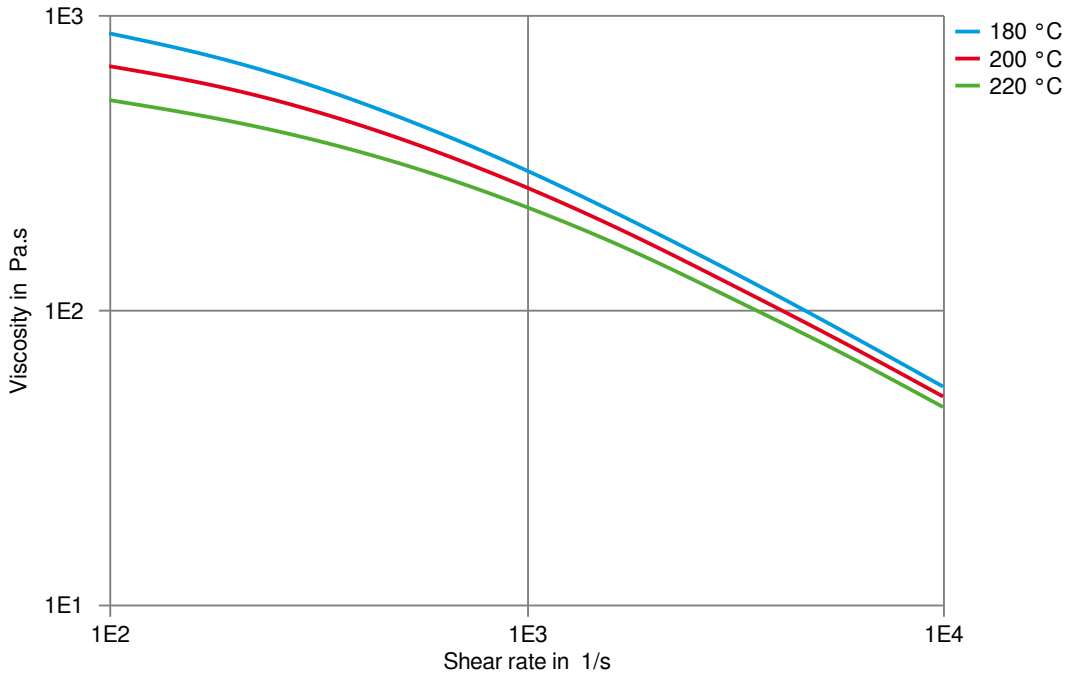
Additives	Release agent

Additional information

Injection molding	Standard injection moulding machines with three phase (15 to 25 D) plasticating screws will fit.
Film extrusion	Standard extruders with grooved feed zone and short compression screws (minimum 25 D) will fit. Melt temperature 180-190 °C
Other extrusion	Standard extruders with grooved feed zone and short compression screws (minimum 25 D) will fit. Melt temperature 180-190 °C
Sheet extrusion	Standard extruders with grooved feed zone and short compression screws (minimum 25 D) will fit. Melt temperature 180-190 °C

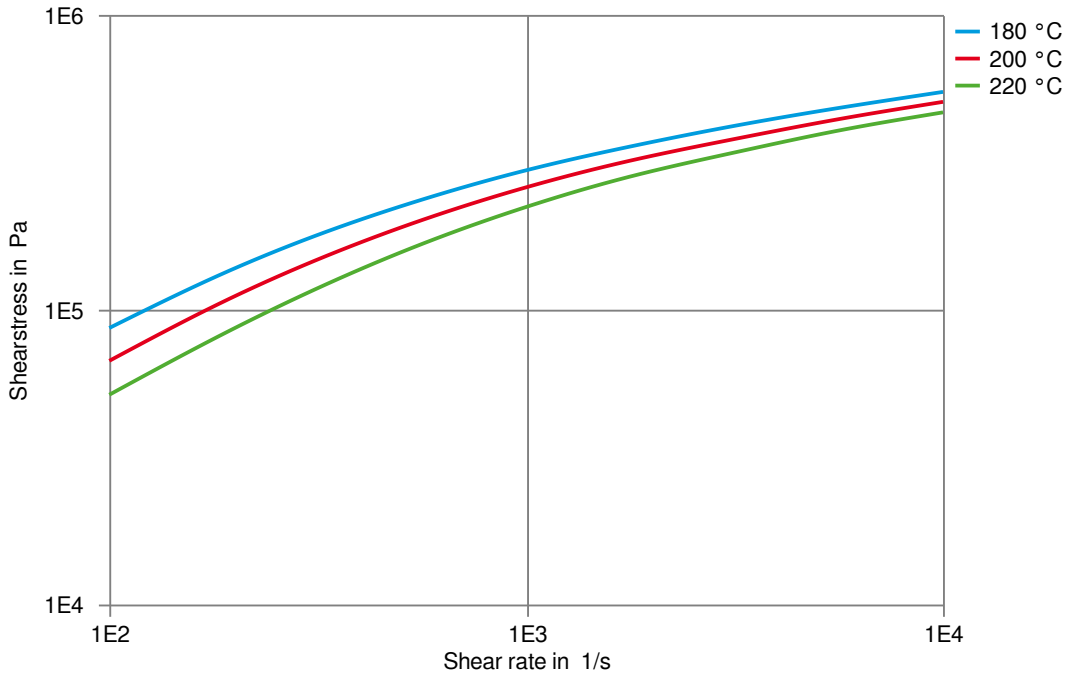
HOSTAFORM® C 9021

Viscosity-shear rate



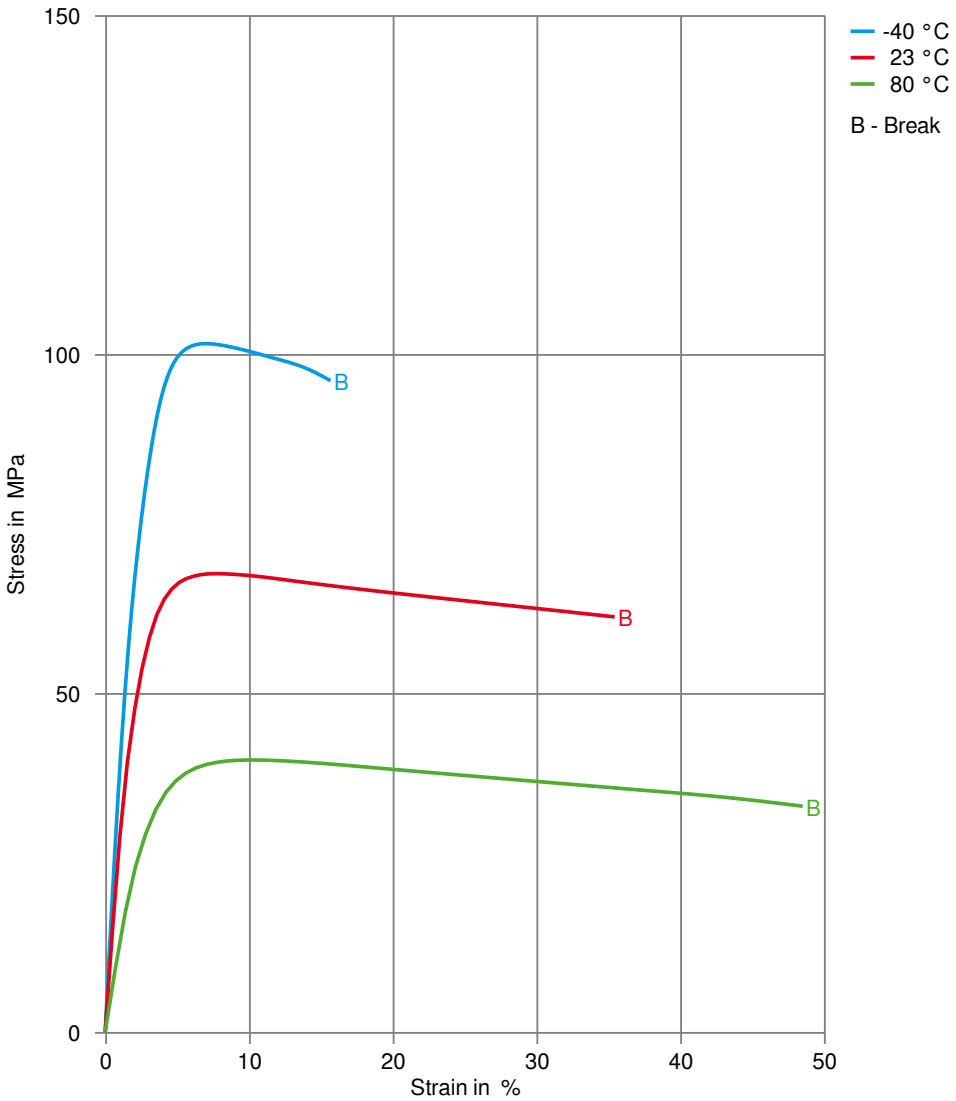
HOSTAFORM® C 9021

Shearstress-shear rate



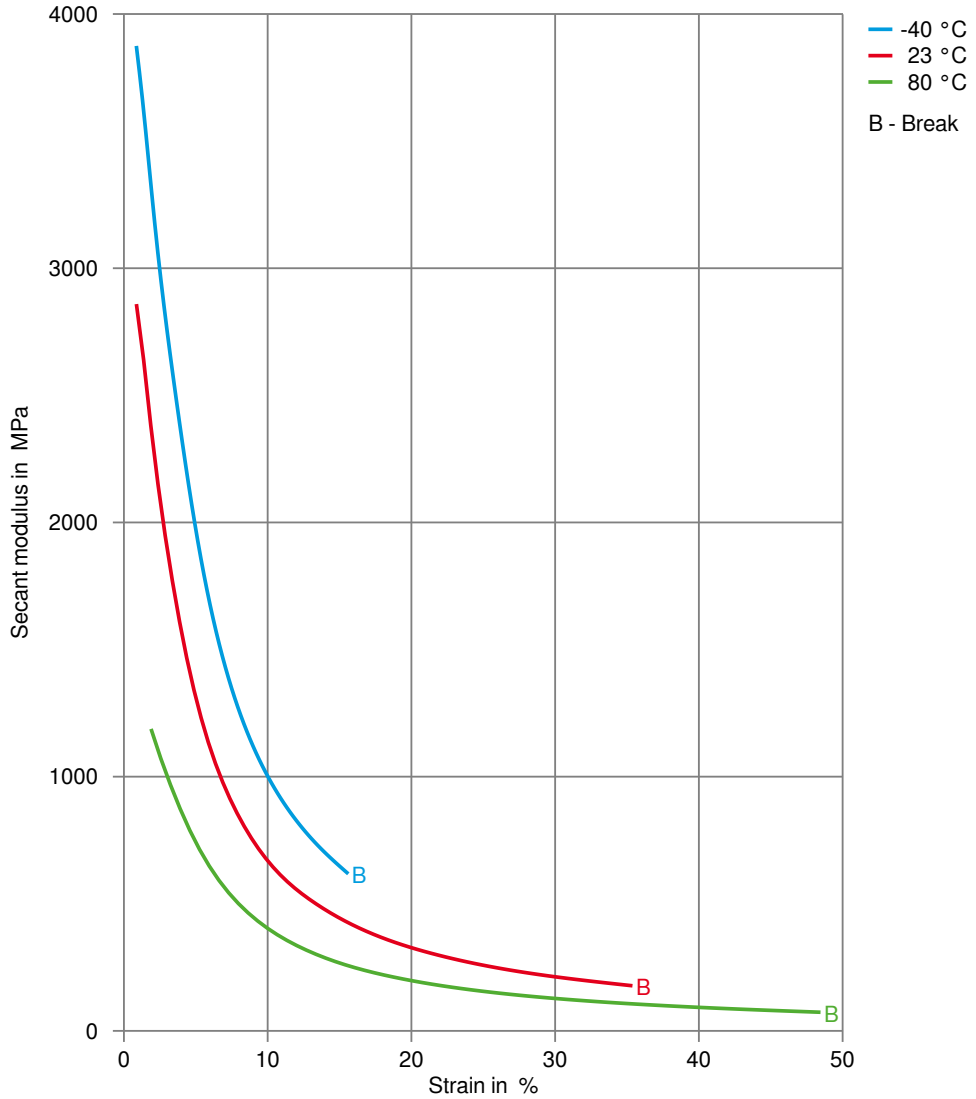
HOSTAFORM® C 9021

Stress-strain



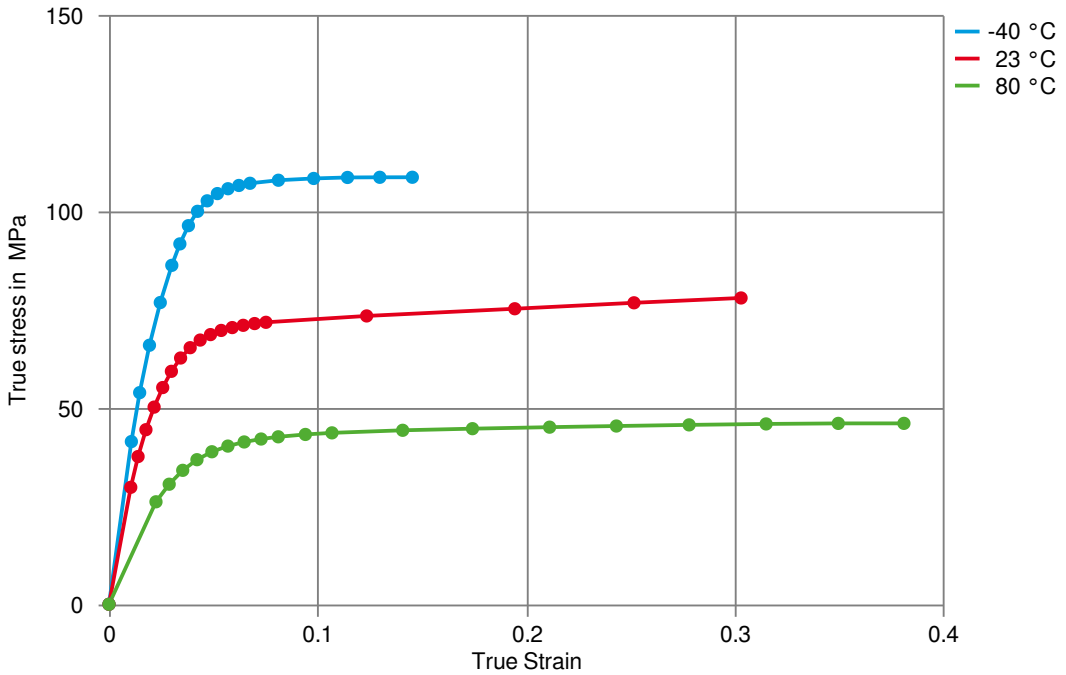
HOSTAFORM® C 9021

Secant modulus-strain



HOSTAFORM® C 9021

True stress-strain



HOSTAFORM® C 9021

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
BJEV	Q-BJEV 01.59	
BMW	GS 93016	
Bosch	N28 BN22-O010	Colors
Stellantis - Chrysler	CPN 1532	Natural
Continental	SN 57914-7	
Continental	TST N 055 54.07	
Mercedes-Benz Group (Daimler)		Door lock parts
Ford	WSK-M4D635-A2	Natural & Black 14
GM	GMW22P-POM-C2	Natural
Nissan	POM-INx-1	
Stellantis - PSA Group	DT00102.AS POM - 003	

HOSTAFORM® C 9021

Toyota	TSM5515-1B	
VW Group	TL 526 36A	
VW Group	TL 526 36C	
TESLA	TM-1001-TMEP 3082	14 BLACK-IPH