HOSTAFORM® C 9021 GV1/30 3134

Food Compliant
POM copolymer
Injection molding type, reinforced with ca 26 % glass fibers; high resistance to thermal and oxidative degradation; reduced thermal expansion and shrinkage.
Product is compliant with European Food Regulation EU 10/2011 and FDA Food Regulation FDA21CFR 177.2470
Ranges of applications: For molded parts with very high strength and rigidity as well as higher hardness.

Rheological properties

Melt volume-flow rate	4	cm^3/10min	ISO 1133
Temperature	190	°C	
Load	2.16	kg	
Moulding shrinkage range, parallel	0.6	%	ISO 294-4, 2577
Moulding shrinkage range, 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
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

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

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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	%	
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

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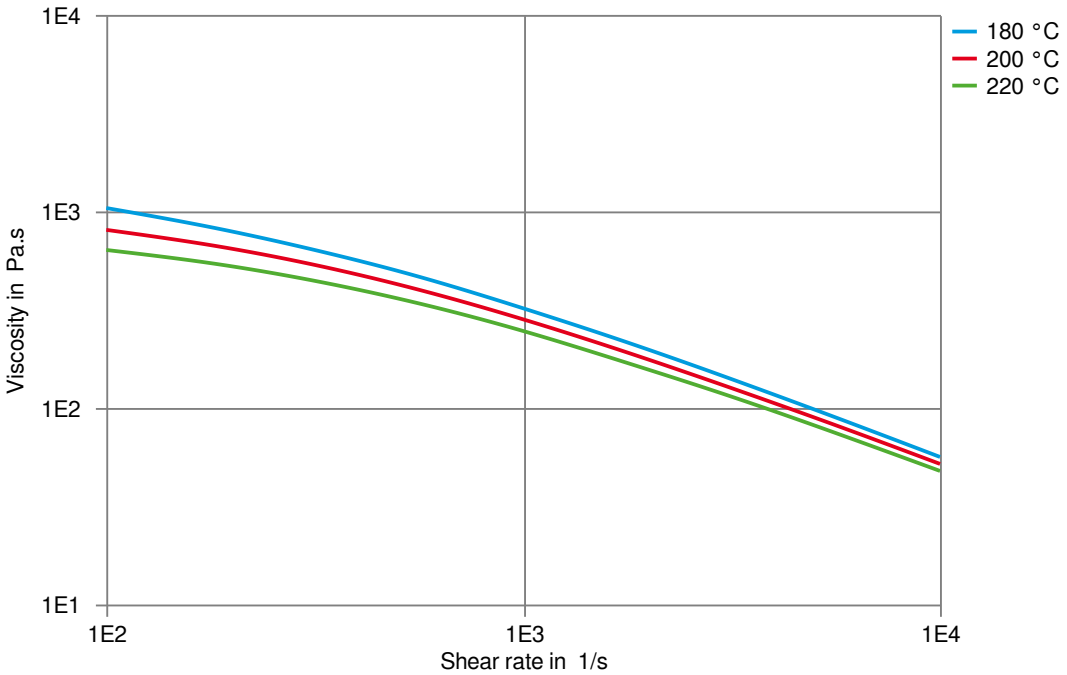
Viscosity-shear rate



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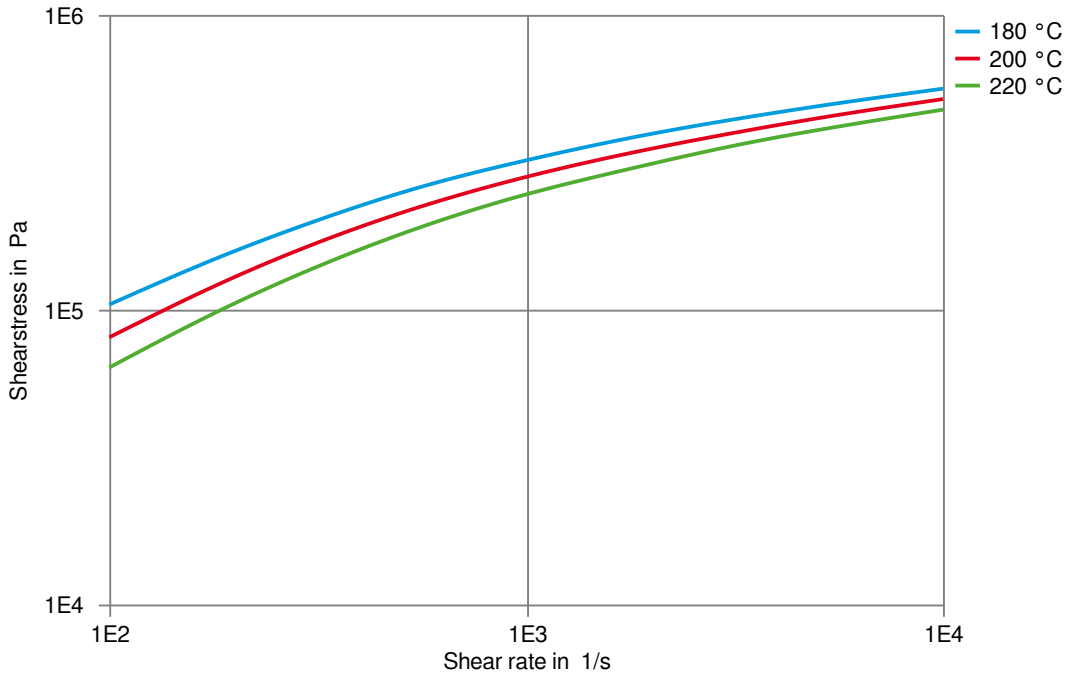
Shearstress-shear rate



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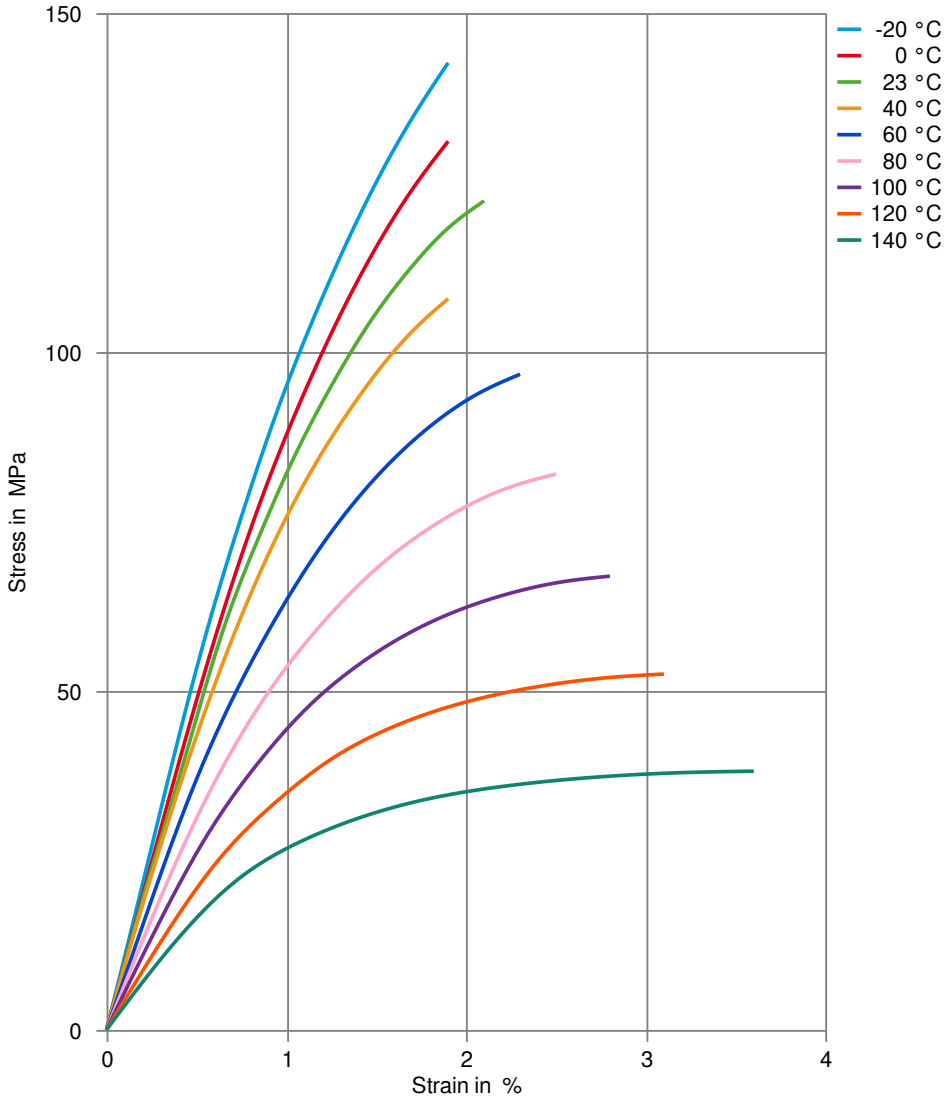
Stress-strain



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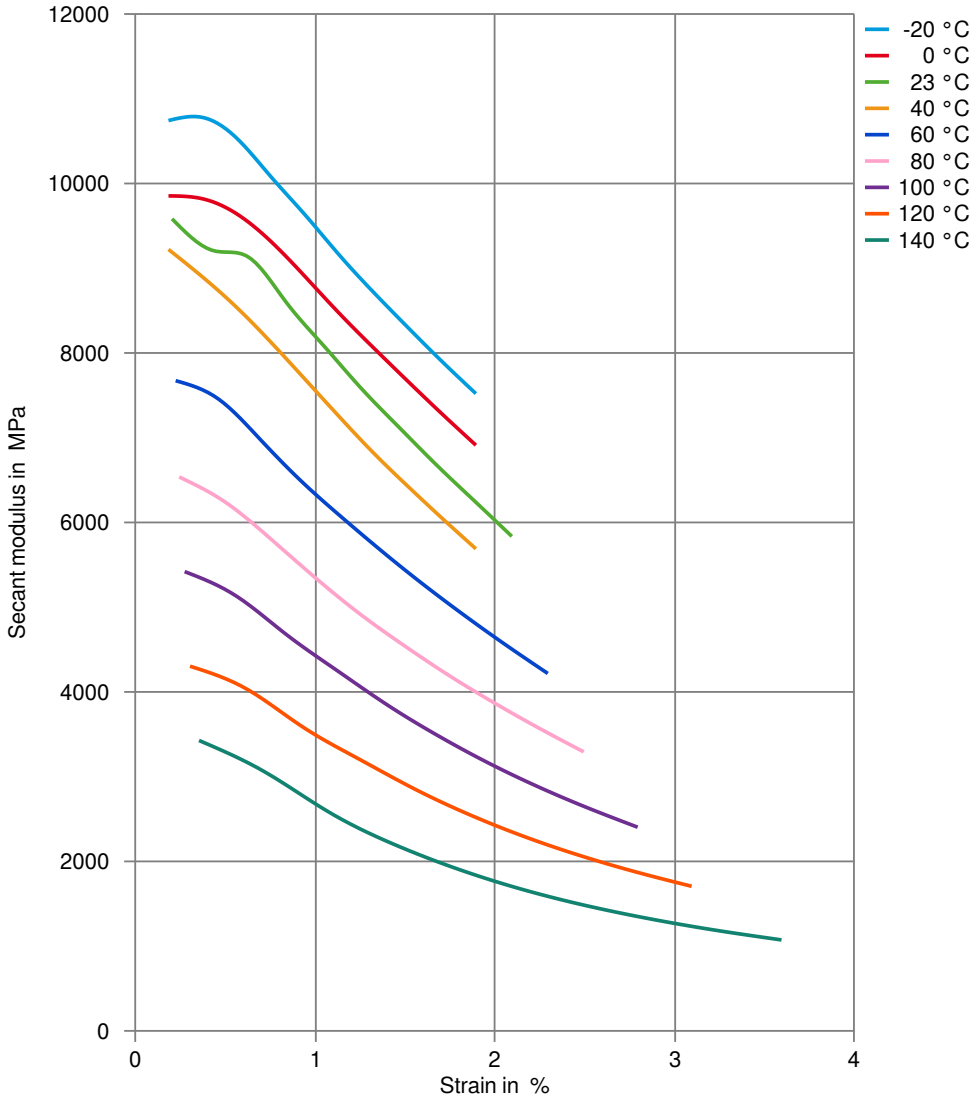
Secant modulus-strain



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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.