Celanese
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HOSTAFORM® C 27021 GV3/30

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Chemical abbreviation according to ISO 1043-1: POM Molding compound ISO 29988- POM-K, M-GNR, 05-002, GB30 POM copolymer reinforced with 30 % glass microbeads, very easy flowing injection molding type; low-warpage; high resistance to thermal and oxidative degradation. Burning rate ISO 3795 and FMVSS 302 < 100 mm/min for a thickness more than 1 mm. Ranges of applications: low-warpage and dimensionally stable molded parts with higher rigidity and hardness. FMVSS = Federal Motor Vehicle Safety Standard (USA)

Product information

Resin Identification	POM		ISO 1043
Part Marking Code	>POM<		ISO 11469

Rheological properties

Melt volume-flow rate	16	cm^3/10min	ISO 1133
Temperature	190	°C	
Load	2.16	kg	

Typical mechanical properties

Tensile modulus	3800	MPa	ISO 527-1/-2
Tensile stress at yield, 50mm/min	38	MPa	ISO 527-1/-2
Tensile strain at yield, 50mm/min	6	%	ISO 527-1/-2
Nominal strain at break	12	%	ISO 527-1/-2
Flexural modulus	3500	MPa	ISO 178
Tensile creep modulus, 1h	3300	MPa	ISO 899-1
Tensile creep modulus, 1000h	2100	MPa	ISO 899-1
Charpy impact strength, 23°C	30	kJ/m^2	ISO 179/1eU
Charpy impact strength, -30°C	30	kJ/m^2	ISO 179/1eU
Charpy notched impact strength, 23°C	2.5	kJ/m^2	ISO 179/1eA
Charpy notched impact strength, -30°C	3	kJ/m^2	ISO 179/1eA
Ball indentation hardness, H 358/30	167	MPa	ISO 2039-1
Poisson's ratio	0.36[C]		

[C]: Calculated

Thermal properties

Melting temperature, 10°C/min	166	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	112	°C	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	90	E-6/K	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	90	E-6/K	ISO 11359-1/-2

Electrical properties

Relative permittivity, 100Hz	5		IEC 62631-2-1
Relative permittivity, 1MHz	4.5		IEC 62631-2-1
Dissipation factor, 100Hz	300	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	80	E-4	IEC 62631-2-1
Volume resistivity	1E11	Ohm.m	IEC 62631-3-1
Surface resistivity	>1E15	Ohm	IEC 62631-3-2
Electric strength	40	kV/mm	IEC 60243-1
Comparative tracking index	600		IEC 60112

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Physical/Other properties

Humidity absorption, 2mm	0.12	%	Sim. to ISO 62
Water absorption, 2mm	0.9	%	Sim. to ISO 62
Density	1590	kg/m³	ISO 1183

Injection

Drying Recommended	no	
Drying Temperature	100	°C
Drying Time, Dehumidified Dryer	3 - 4	h
Processing Moisture Content	≤0.2	%
Melt Temperature Optimum	200	°C
Min. melt temperature	190	°C
Max. melt temperature	210	°C
Screw tangential speed	≤0.3	m/s
Mold Temperature Optimum	100	°C
Min. mould temperature	80	°C
Max. mould temperature	120	°C
Hold pressure range	60 - 120	MPa
Back pressure	2	MPa

Characteristics

Processing	Injection Moulding
Delivery form	Pellets
Additives	Release agent
Special characteristics	High Flow, Low Warpage

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

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Processing Notes

Conditioning e.g. moisturizing is not necessary.

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.

Automotive

OEM	STANDARD
Continental	TST N 055 54.16

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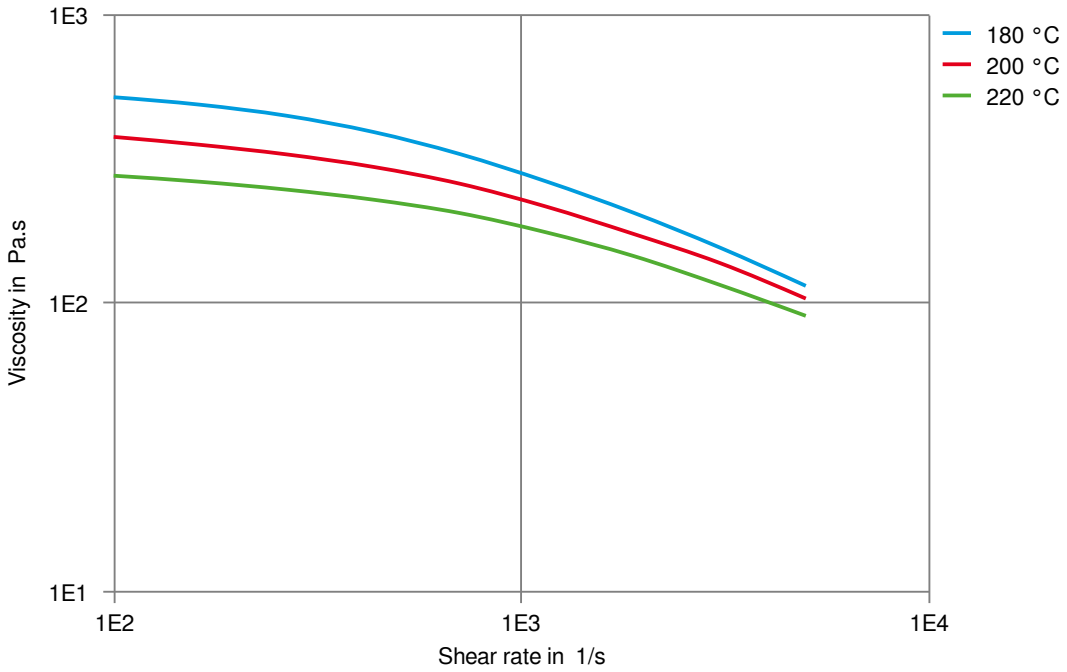
Viscosity-shear rate



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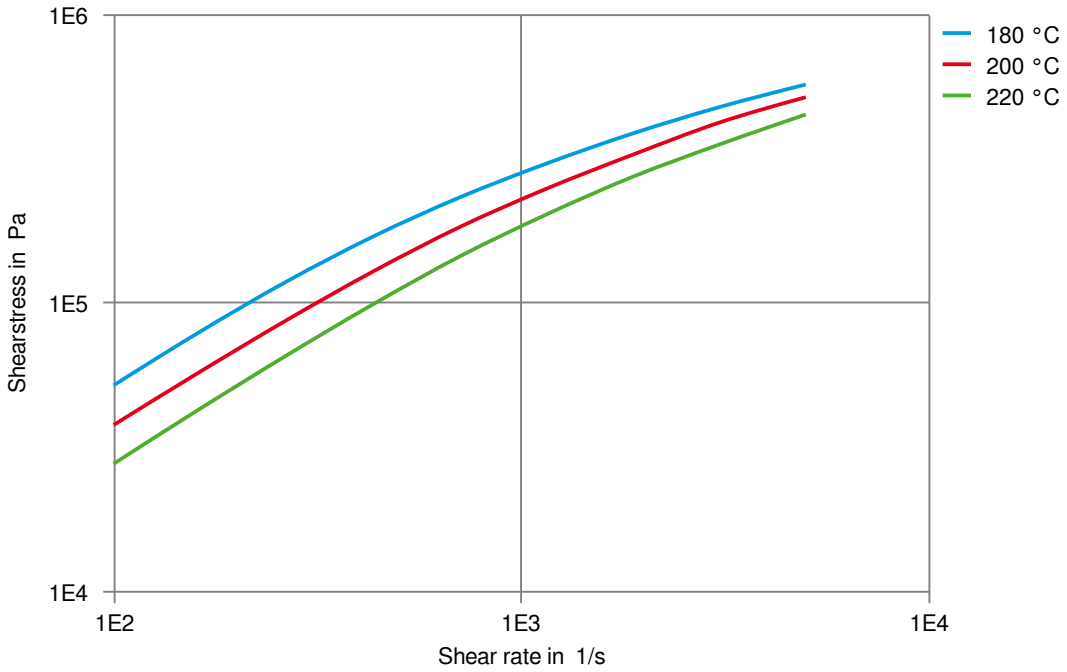
Shearstress-shear rate



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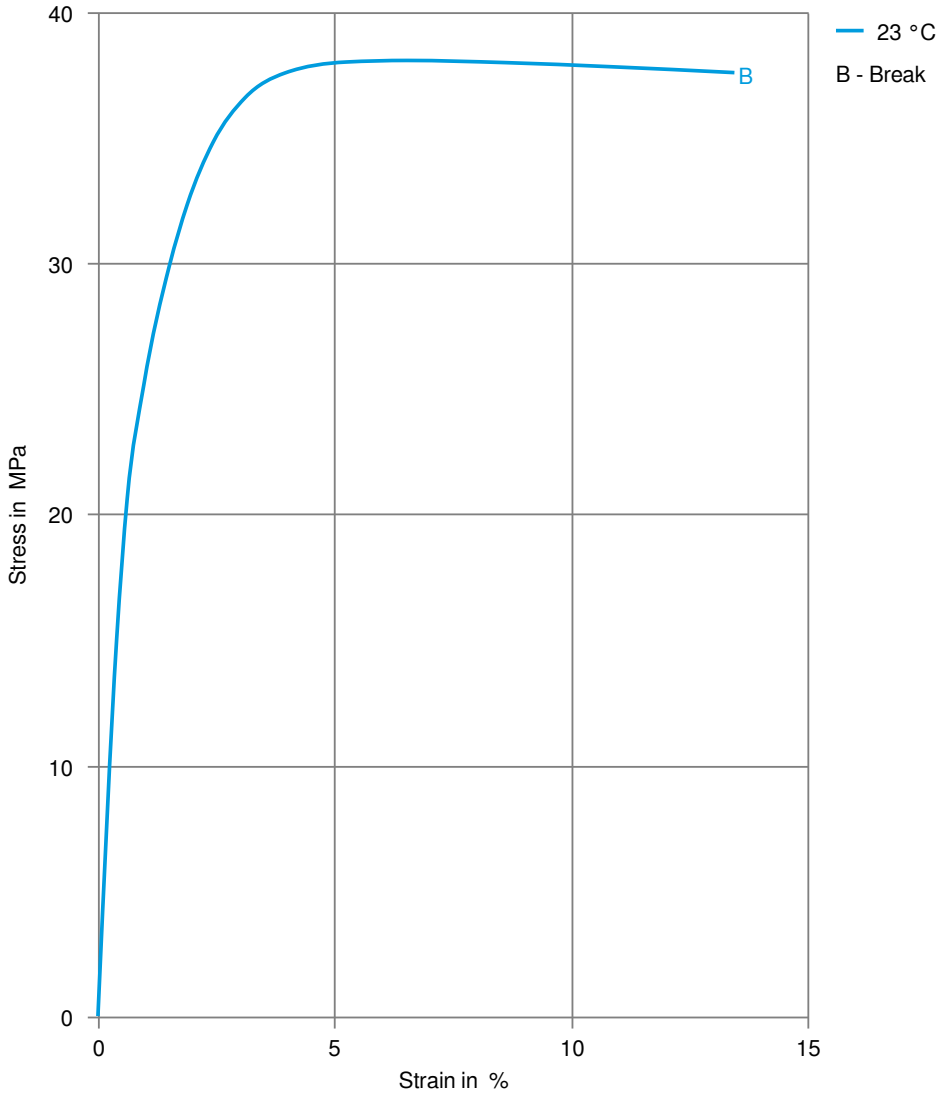
Stress-strain



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Secant modulus-strain