HOSTAFORM® C 27021 XAP® C

POM for Consumers and Cosmetics. Low Emissions, low Extractables, FDA approval
POM copolymer
Easy flow injection molding grade with very low emissions and migrations; designed for consumer packaging.
Emission according to VDA 275 < 2 mg/kg (natural grades)
Monomers and additives are listed in EU-Regulation (EU) 10/2011 FDA compliant according to 21 CFR 177.2470 FDA = Food and Drug Administration (USA)

Rheological properties

Melt volume-flow rate	24	cm^3/10min	ISO 1133
Temperature	190	°C	
Load	2.16	kg	
Moulding shrinkage, parallel	1.9	%	ISO 294-4, 2577
Moulding shrinkage, normal	1.8	%	ISO 294-4, 2577

Typical mechanical properties

Tensile Modulus	2900	MPa	ISO 527-1/-2
Yield stress, 50mm/min	65	MPa	ISO 527-1/-2
Yield strain, 50mm/min	7.5	%	ISO 527-1/-2
Nominal strain at break	17	%	ISO 527-1/-2
Flexural Modulus	2800	MPa	ISO 178
Tensile creep modulus, 1h	2500	MPa	ISO 899-1
Tensile creep modulus, 1000h	1300	MPa	ISO 899-1
Charpy impact strength, 23°C	170	kJ/m^2	ISO 179/1eU
Charpy impact strength, -30°C	170	kJ/m^2	ISO 179/1eU
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
Ball indentation hardness, H 358/30	147	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	106	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h, 50N	151	°C	ISO 306
Coeff. of linear therm. expansion, parallel	110	E-6/K	ISO 11359-1/-2
Thermal conductivity of melt	0.155	W/(m K)	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

HOSTAFORM® C 27021 XAP® C

Electrical properties

Relative permittivity, 100Hz	4		IEC 62631-2-1
Relative permittivity, 1MHz	4		IEC 62631-2-1
Dissipation factor, 100Hz	25	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	50	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

Other properties

Humidity absorption, 2mm	0.2	%	Sim. to ISO 62
Water absorption, 2mm	0.65	%	Sim. to ISO 62
Density	1410	kg/m³	ISO 1183
Density of melt	1200	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	4	MPa	
Injection speed	slow-medium		
Ejection temperature	140	°C	Internal

Characteristics

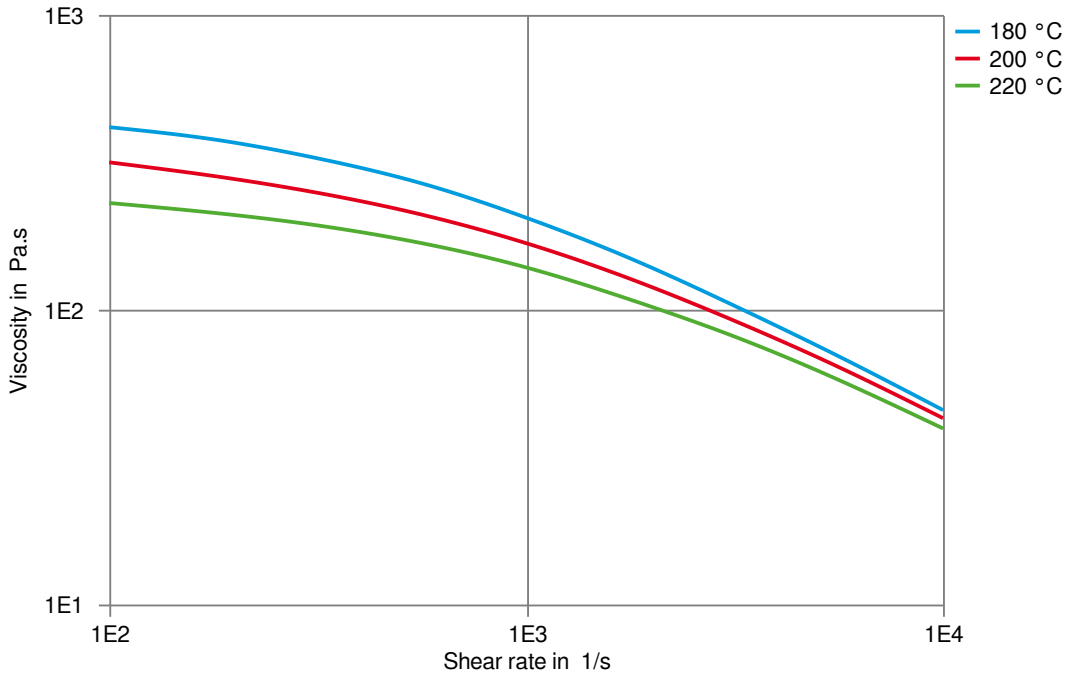
Additives	Release agent

Additional information

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

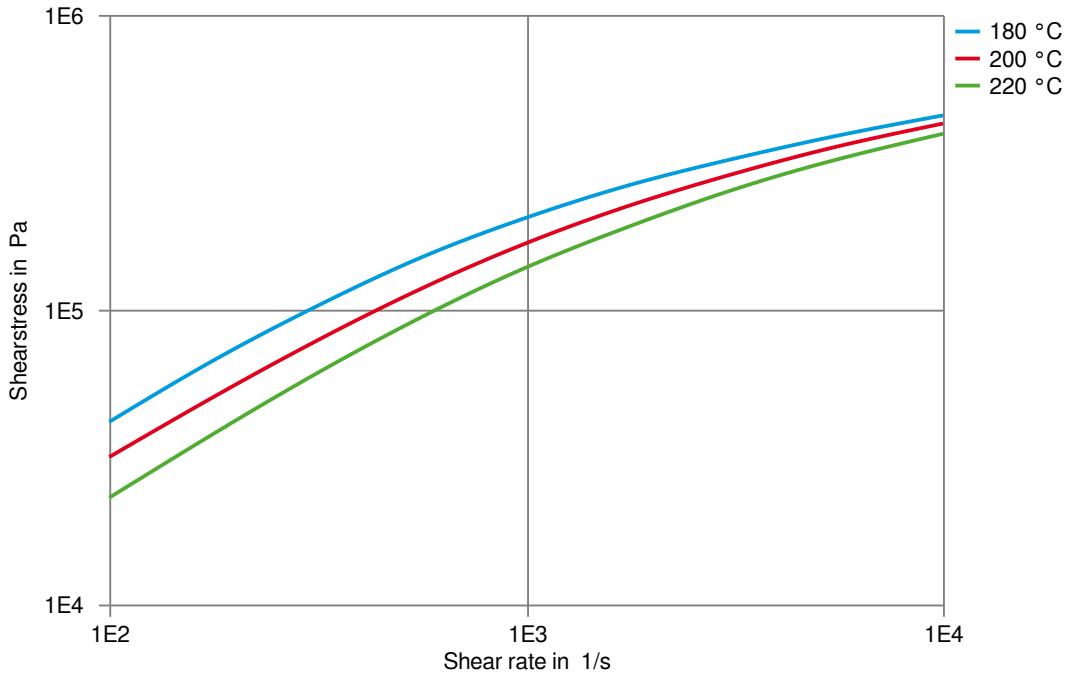
HOSTAFORM® C 27021 XAP® C

Viscosity-shear rate



HOSTAFORM® C 27021 XAP® C

Shearstress-shear rate



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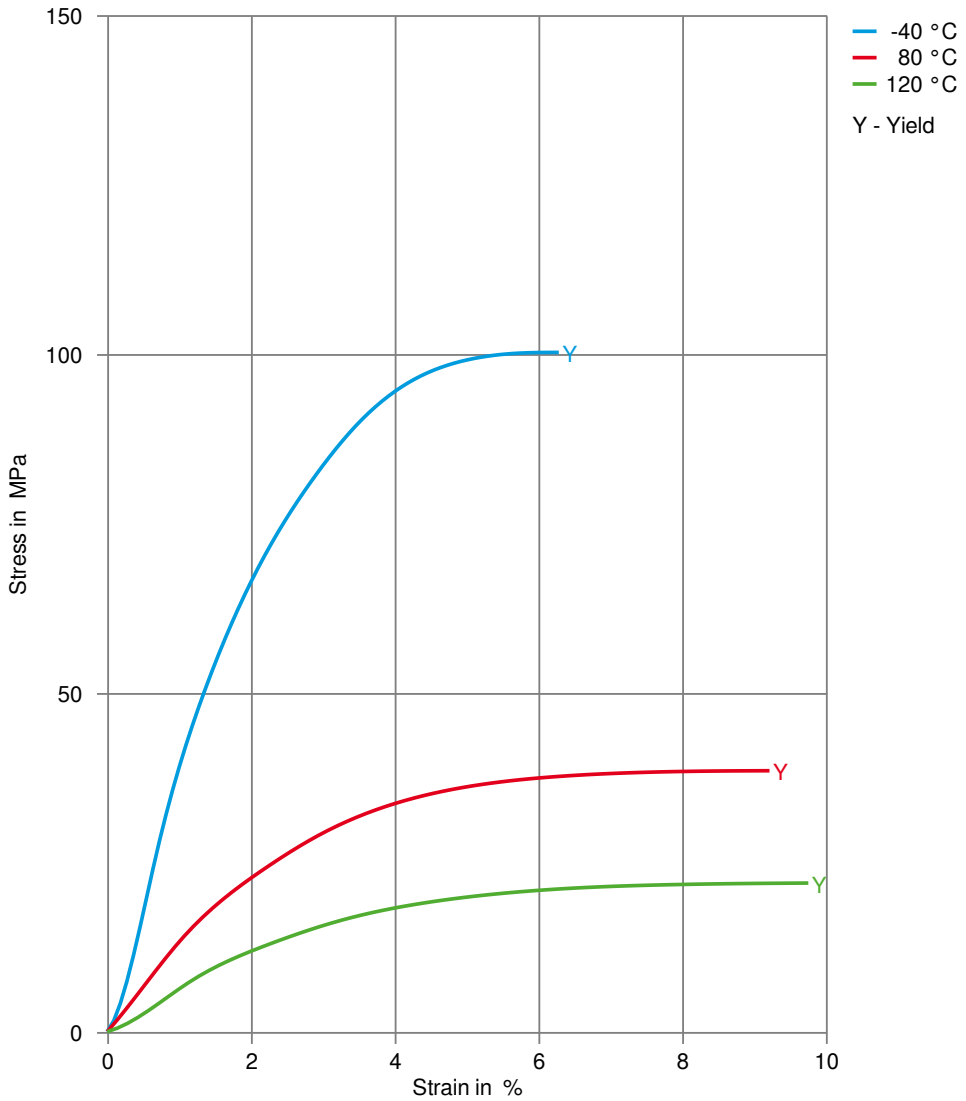
Stress-strain



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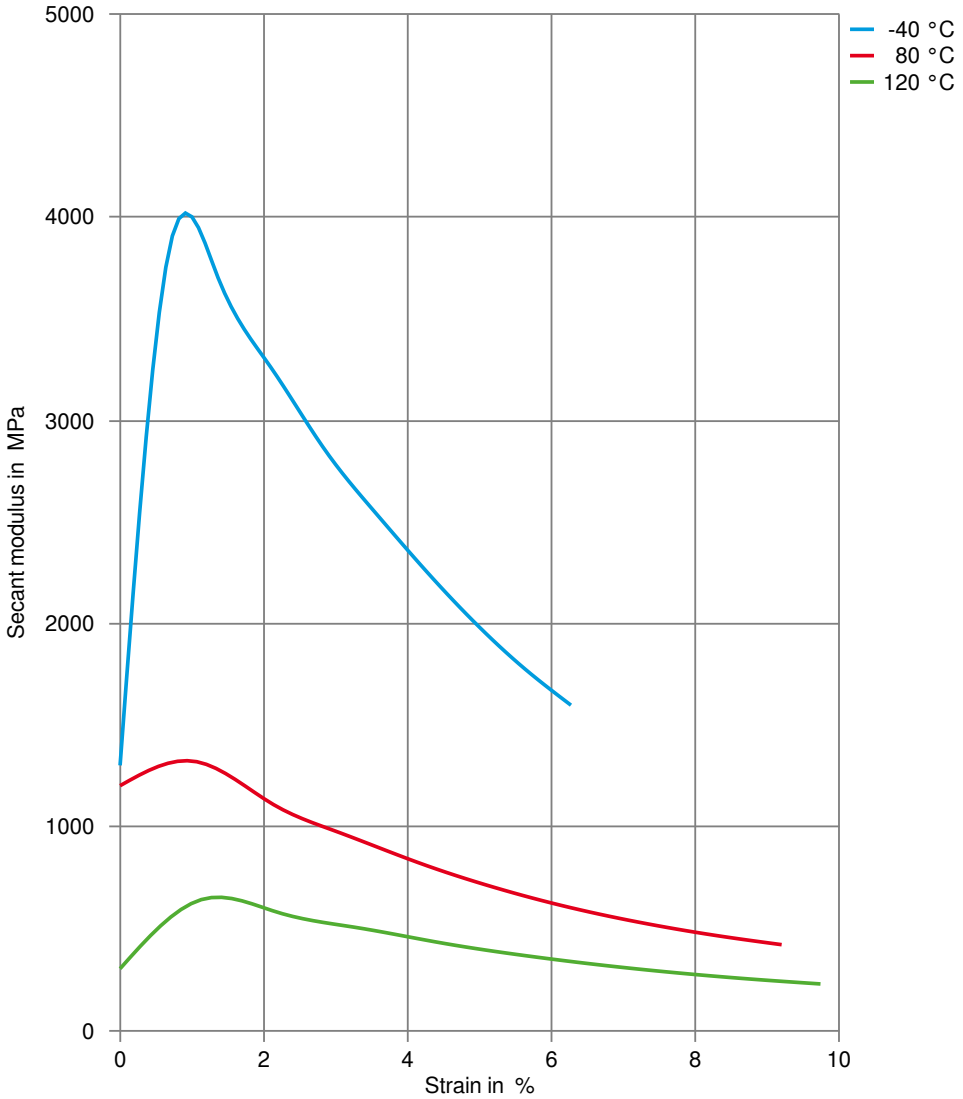
Secant modulus-strain



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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.
Injection molding	Standard injection moulding machines with three phase (15 to 25 D) plasticating screws will fit.
Injection molding Preprocessing	To achive low emission values pre drying using a recirculating air dryer (100 to 120 °C / max. 40 mm layer / 3 to 6 hours) is recommended. Max. Water content 0,1 %
Injection molding Postprocessing	Conditioning e.g. moisturizing is not necessary.

Revised: 2023-02-23 Source: Celanese Materials Database