HOSTAFORM® C 9021 XAP® ECO-B

HOSTAFORM®

POM copolymer injection molding grade with medium flow and reduced emissions especially for automotive interior application. Good properties as 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 are maintained Burning rate ISO 3795 and FMVSS 302 < 75 mm/min for a thickness more than 1 mm. VDA 275 Emissions < 10 ppm Ranges of applications: automotive engineering, FMVSS = Federal Motor Vehicle Safety Standard (USA)
ECO-B: Hostaform® ECO-B is a POM-Copolymer with the same properties and performance as standard grades but produced with sustainability in mind. Using a mass-balance approach, biogenic feedstocks are used to offset the use of fossil-based raw materials and decrease greenhouse gas emissions. The process is audited and certified according to the ISCC Plus mass balance approach.

Product information

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

Rheological properties

Melt volume-flow rate	8	cm^3/10min	ISO 1133
Temperature	374	°F	
Load	4.76	lb	
Molding shrinkage, parallel	2.0	%	ISO 294-4, 2577
Molding shrinkage, normal	1.9	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	413000	psi	ISO 527-1/-2
Tensile stress at yield, 50mm/min	9300	psi	ISO 527-1/-2
Tensile strain at yield, 50mm/min	9	%	ISO 527-1/-2
Nominal strain at break	30	%	ISO 527-1/-2
Flexural modulus	392000	psi	ISO 178
Flexural strength	12900	psi	ISO 178
Tensile creep modulus, 1h	363000	psi	ISO 899-1
Tensile creep modulus, 1000h	189000	psi	ISO 899-1
Charpy impact strength, 23°C	105	$ftlb/in^2$	ISO 179/1eU
Charpy impact strength, -30°C	105	$ftlb/in^2$	ISO 179/1eU
Charpy notched impact strength, 23°C	3.09	$ftlb/in^2$	ISO 179/1eA
Charpy notched impact strength, -30°C	2.85	$ftlb/in^2$	ISO 179/1eA
Ball indentation hardness, H 358/30	20900	psi	ISO 2039-1

Thermal properties

Melting temperature, 10°C/min	331	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	219	°F	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	0.61	E-4/°F	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	0.611	E-4/°F	ISO 11359-1/-2
Thermal conductivity of melt	0.155	W/(m K)	ISO 22007-2
Effective thermal diffusivity, flow	4.85E-8	m^2/s	ISO 22007-4
Specific heat capacity of melt	2210	J/(kg K)	ISO 22007-4

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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
Volume resistivity	1E12	Ohm.m	IEC 62631-3-1
Surface resistivity	1E14	Ohm	IEC 62631-3-2
Electric strength	889	kV/in	IEC 60243-1
Comparative tracking index	600		IEC 60112

Physical/Other properties

Humidity absorption, 2mm	0.2	%	Sim. to ISO 62
Water absorption, 2mm	0.65	%	Sim. to ISO 62
Density	0.0509	lb/in^3	ISO 1183

Injection

Drying Recommended	no	
Drying Temperature	212	°F
Drying Time, Dehumidified Dryer	3 - 4	h
Processing Moisture Content	≤0.2	%
Melt Temperature Optimum	392	°F
Min. melt temperature	374	°F
Max. melt temperature	410	°F
Max. screw tangential speed	≤0.3	m/s
Mold Temperature Optimum	212	°F
Min. mold temperature	176	°F
Max. mold temperature	248	°F
Hold pressure range	8700 - 17400	psi
Hold Pressure Time (h is the max. wall thickness of the part in mm)	2h^2-3	s
Back pressure	580	psi
Ejection temperature	284	°F

Characteristics

Processing	Injection Molding
Additives	Release agent
Special characteristics	Low emissions
Sustainability	Bio-Content

Additional information

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 %

Processing Notes

Processing

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

Postprocessing

Conditioning e.g. moisturizing is not necessary.

Pre-Drying

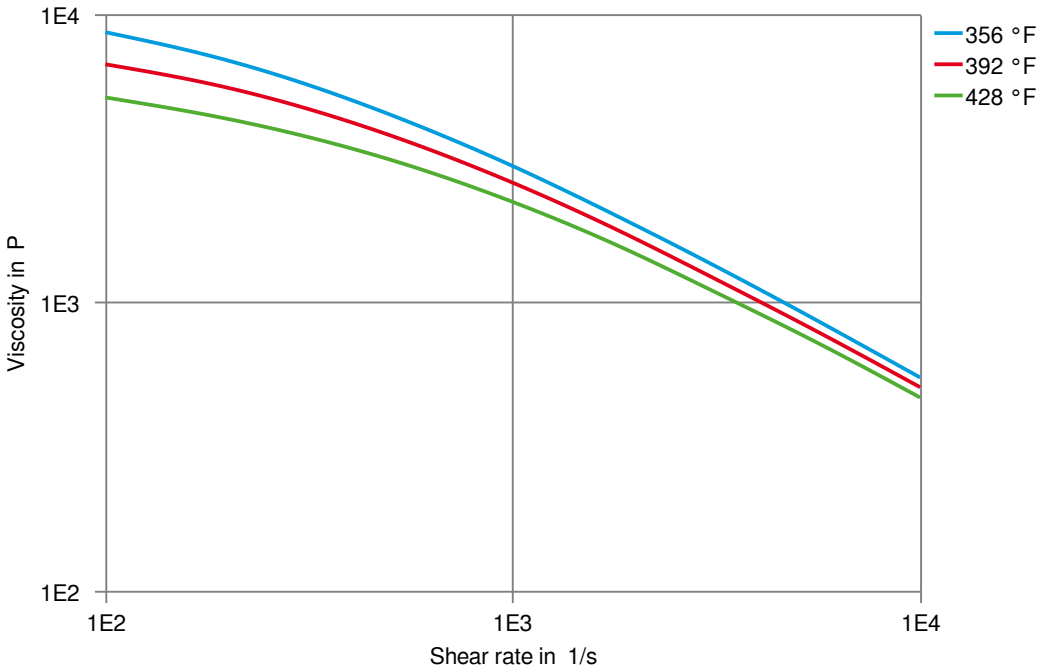
It is normally not necessary to dry HOSTAFORM. However, should there be surface moisture (condensate) on the molding compound as a result of incorrect storage, drying is required. A circulating air drying cabinet can be used for this purpose if the granul

Storage

The product can then be stored in standard conditions until processed.

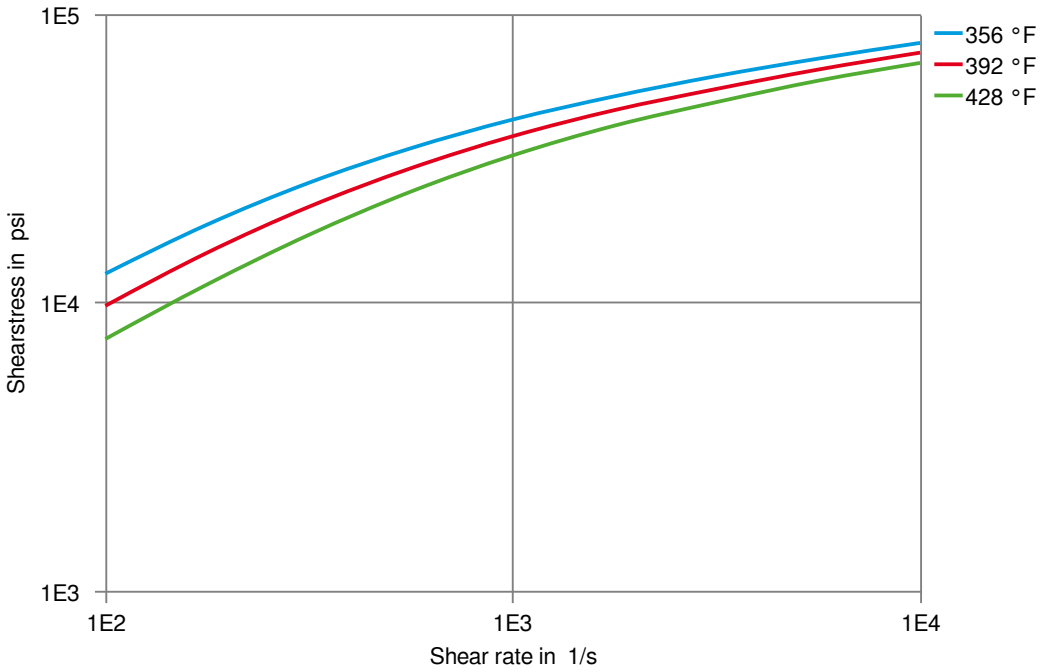
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Viscosity-shear rate



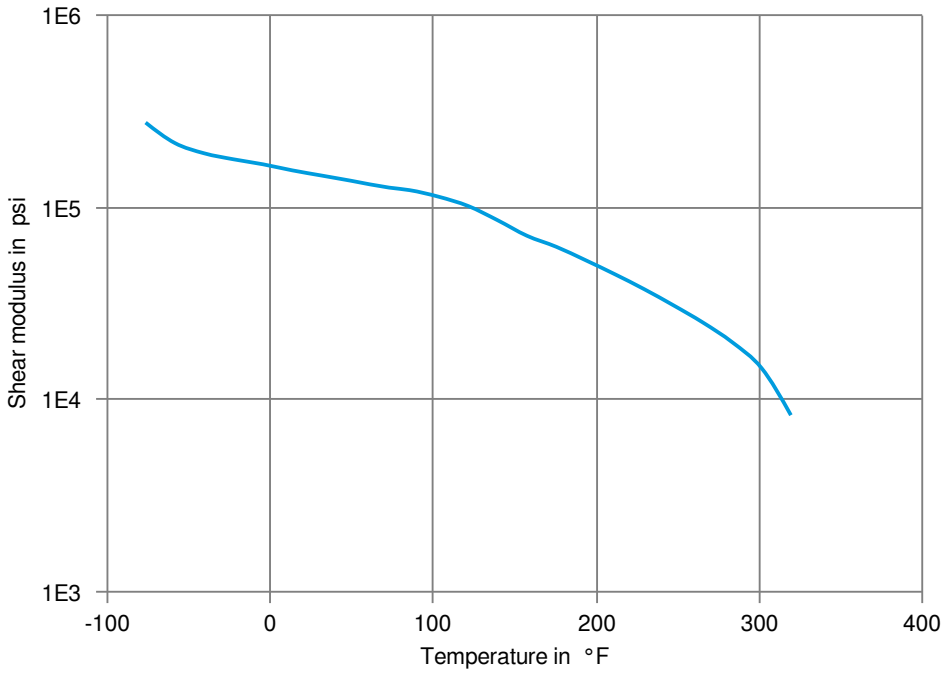
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Shearstress-shear rate



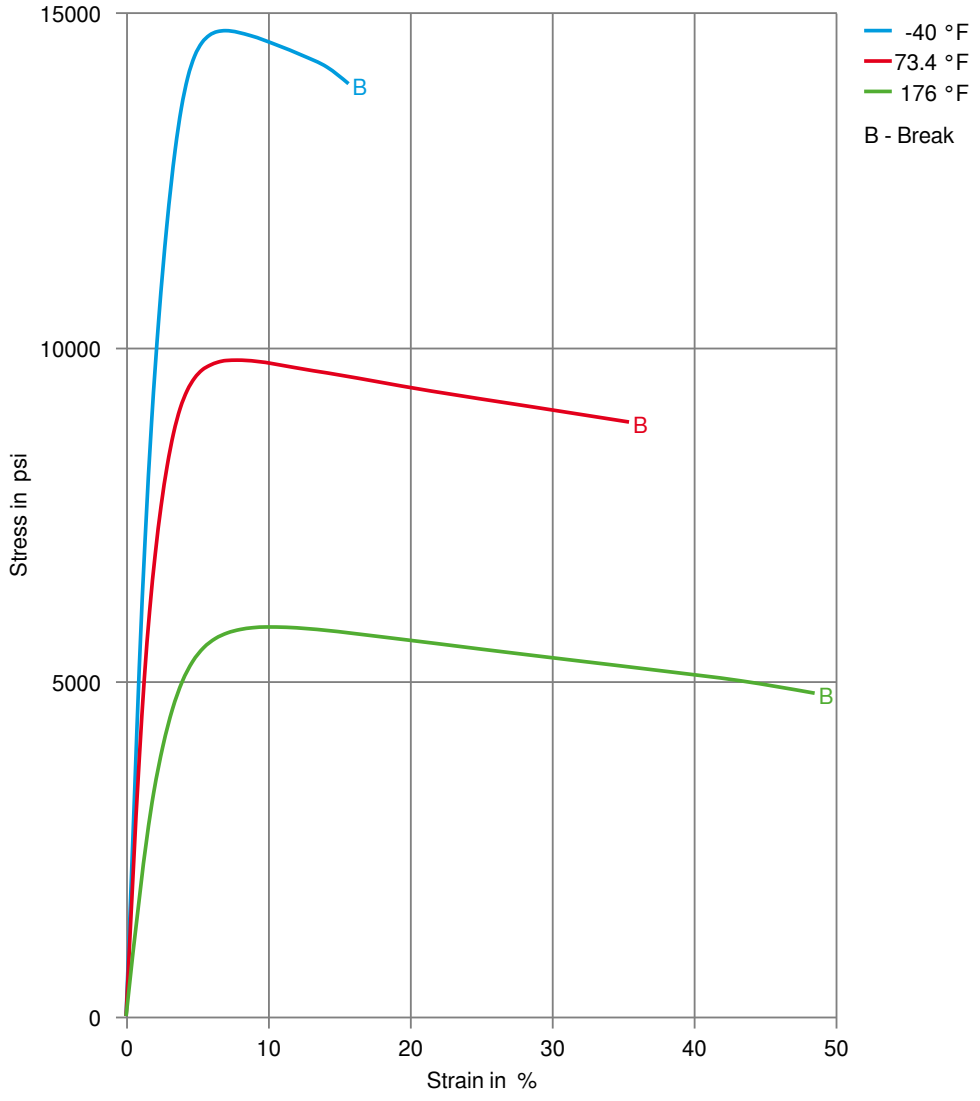
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Dynamic Shear modulus-temperature



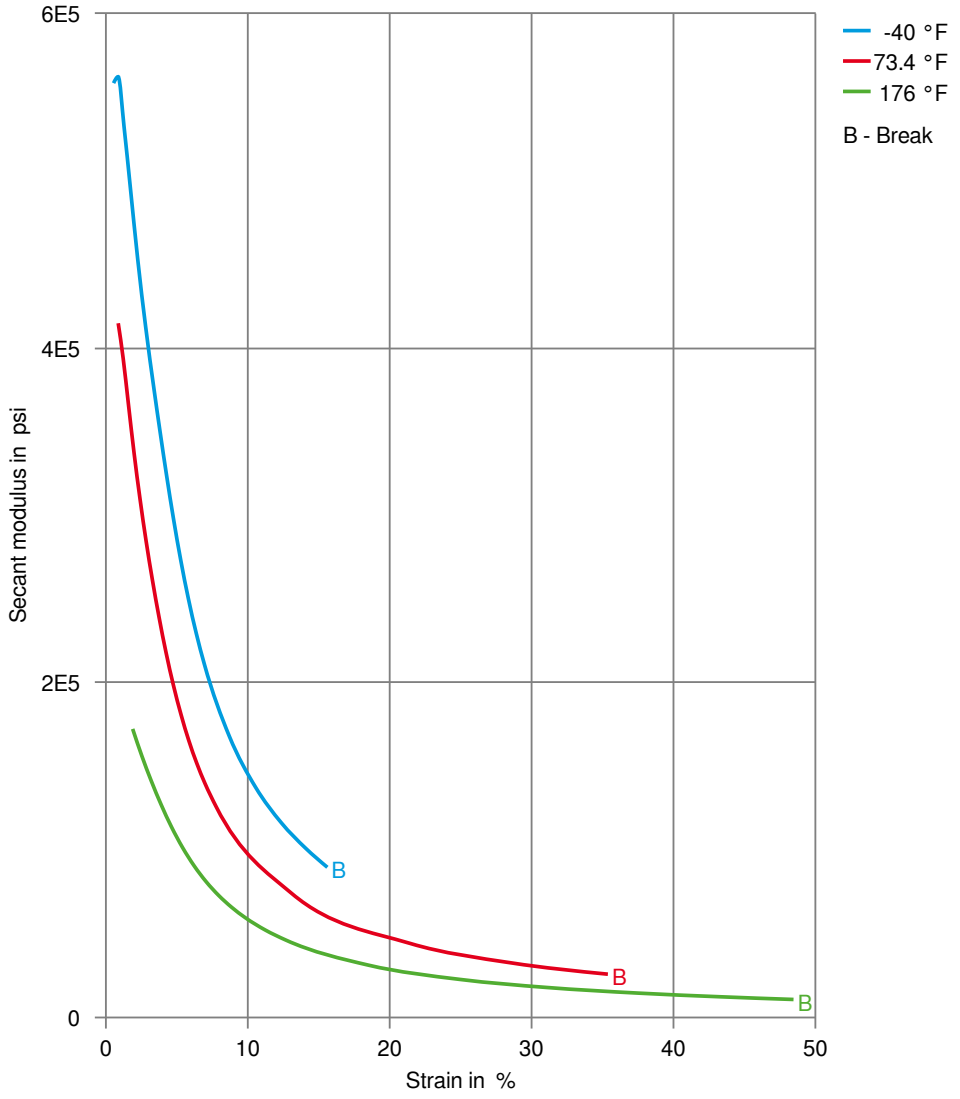
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Stress-strain



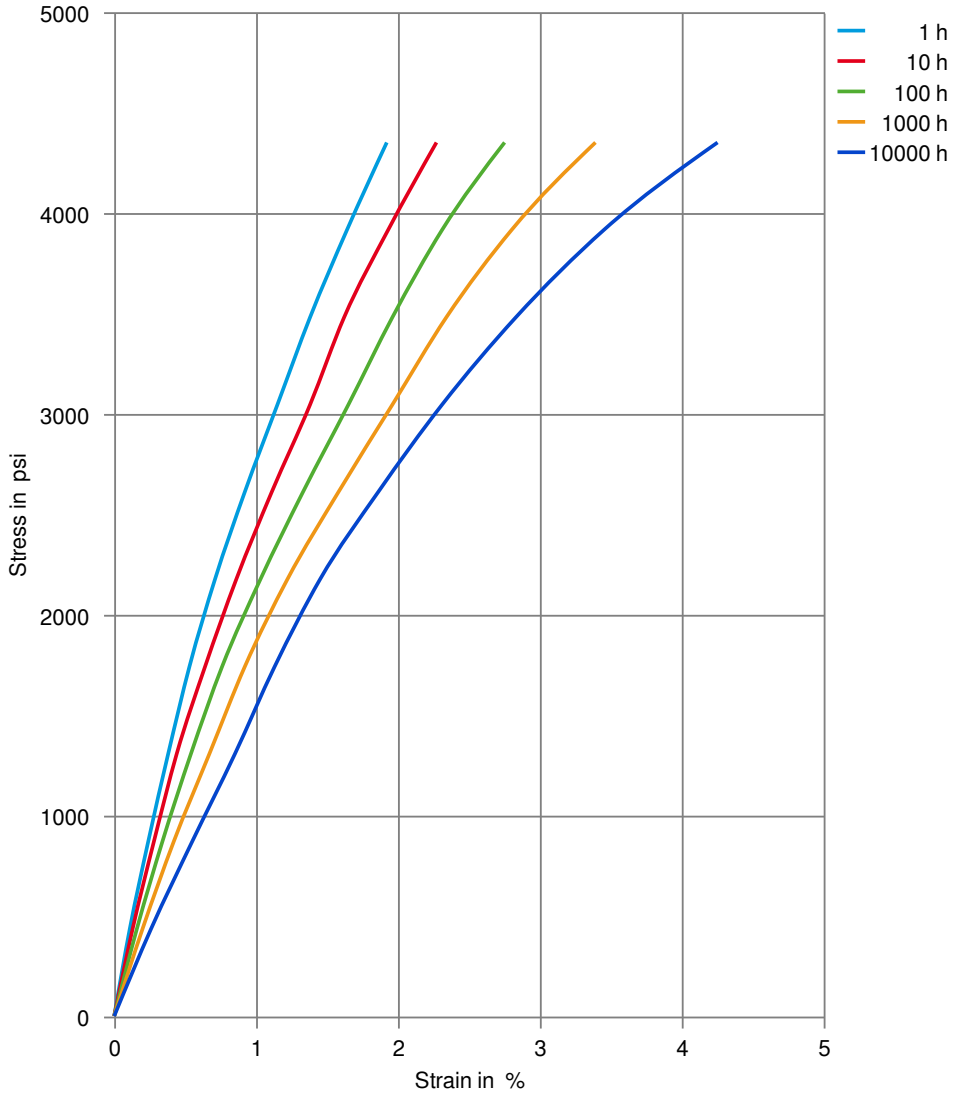
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Secant modulus-strain



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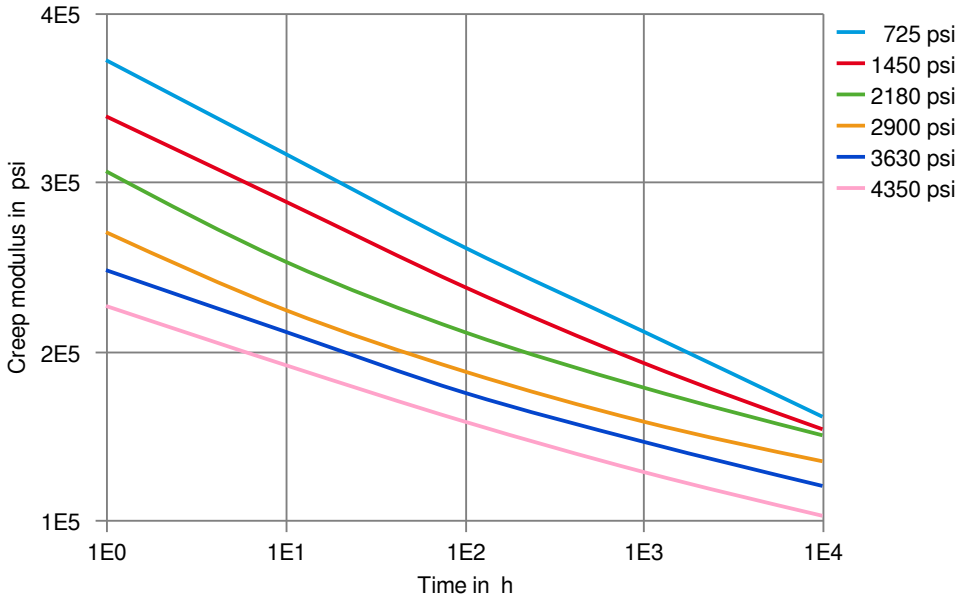
Stress-strain (isochronous) 73.4 °F



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Creep modulus-time 73.4 °F



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