HOSTAFORM® S 27064 XAP®

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Polyacetal copolymer, impact modified Easy flowing, elastomer-containing injection molding type based on HOSTAFORM® C 27021 with high toughness and reduced emissions HB. Burning rate ISO 3795 and FMVSS 302 < 100 mm/min for more than 1 mm thickness. Emission according to VDA 275 <10 mg/kg (natural and colored grades) Ranges of applications: For thin-walled molded parts with high energy-absorbing capacity. Preliminary datasheet

Product information

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

Rheological properties

Melt volume-flow rate	19	cm^3/10min	ISO 1133
Temperature	374	°F	
Load	4.76	lb	
Molding shrinkage, parallel	1.8	%	ISO 294-4, 2577
Molding shrinkage, normal	1.7	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	218000	psi	ISO 527-1/-2
Tensile stress at yield, 50mm/min	5900	psi	ISO 527-1/-2
Tensile strain at yield, 50mm/min	10	%	ISO 527-1/-2
Nominal strain at break	35	%	ISO 527-1/-2
Charpy impact strength, 23°C	71.4[P]	ftlb/in^2	ISO 179/1eU
Charpy impact strength, -30°C	52.3	ftlb/in^2	ISO 179/1eU
Charpy notched impact strength, 23°C	4.76	ftlb/in^2	ISO 179/1eA
Charpy notched impact strength, -30°C	2.85	ftlb/in^2	ISO 179/1eA
Puncture energy, 23°C	35	J	ISO 6603-2
Ball indentation hardness, H 358/30	13100	psi	ISO 2039-1

[P]: Partial Break

Thermal properties

Melting temperature, 10°C/min	331	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	171	°F	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	0.72	E-4/°F	ISO 11359-1/-2

Electrical properties

Relative permittivity, 100Hz	4.4		IEC 62631-2-1
Relative permittivity, 1MHz	4.4		IEC 62631-2-1
Dissipation factor, 100Hz	100	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	200	E-4	IEC 62631-2-1
Volume resistivity	1E11	Ohm.m	IEC 62631-3-1
Surface resistivity	1E13	Ohm	IEC 62631-3-2
Electric strength	711	kV/in	IEC 60243-1
Comparative tracking index	600		IEC 60112

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Physical/Other properties

Humidity absorption, 2mm	0.25	%	Sim. to ISO 62
Water absorption, 2mm	0.65	%	Sim. to ISO 62
Density	0.0495	lb/in³	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	383	°F
Min. melt temperature	374	°F
Max. melt temperature	392	°F
Max. screw tangential speed	≤0.3	m/s
Mold Temperature Optimum	149	°F
Min. mold temperature	140	°F
Max. mold temperature	158	°F
Hold pressure range	8700 - 17400	psi
Hold Pressure Time (h is the max. wall thickness of the part in mm)	2h²-3	s
Back pressure	290	psi

Characteristics

Processing	Injection Molding
Additives	Release agent
Special characteristics	High impact or impact modified, High Flow, Low emissions

Additional information

Processing Notes

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.

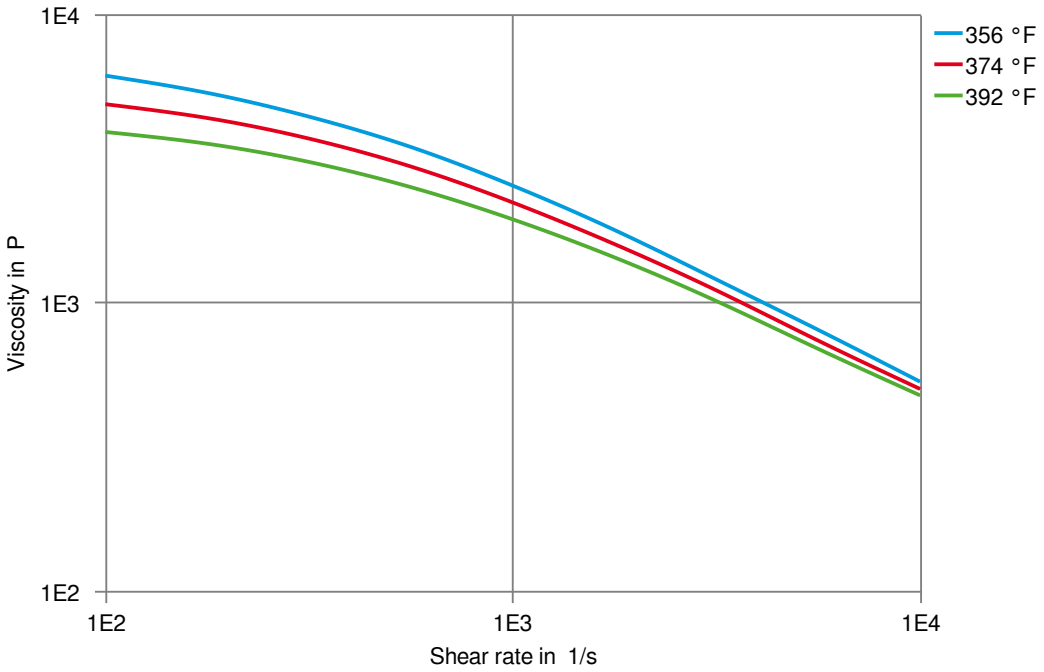
Storage

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

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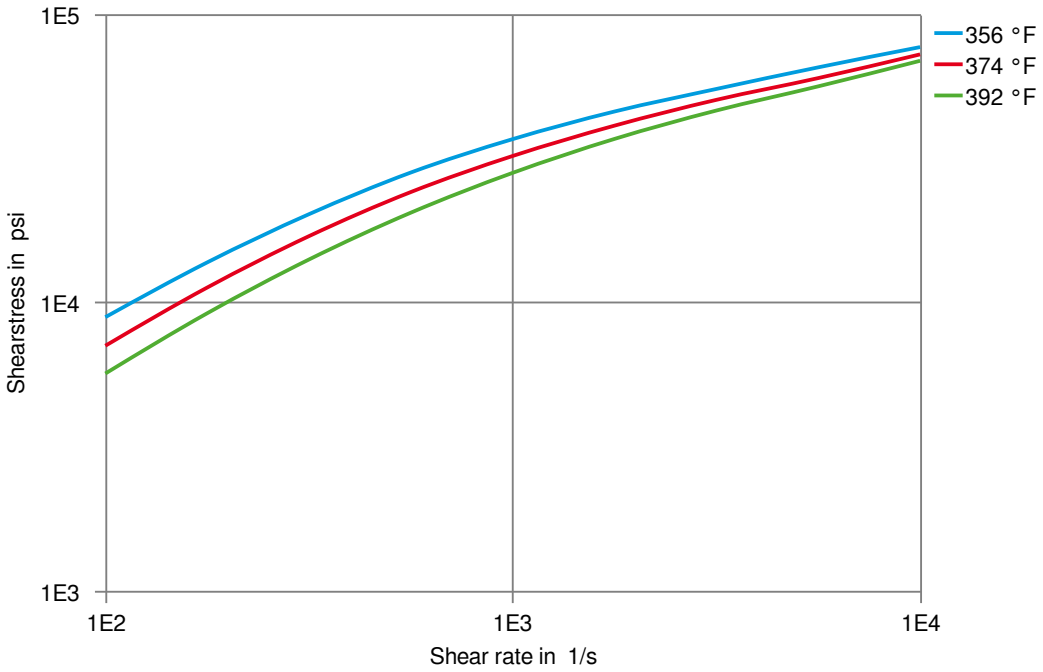
Viscosity-shear rate



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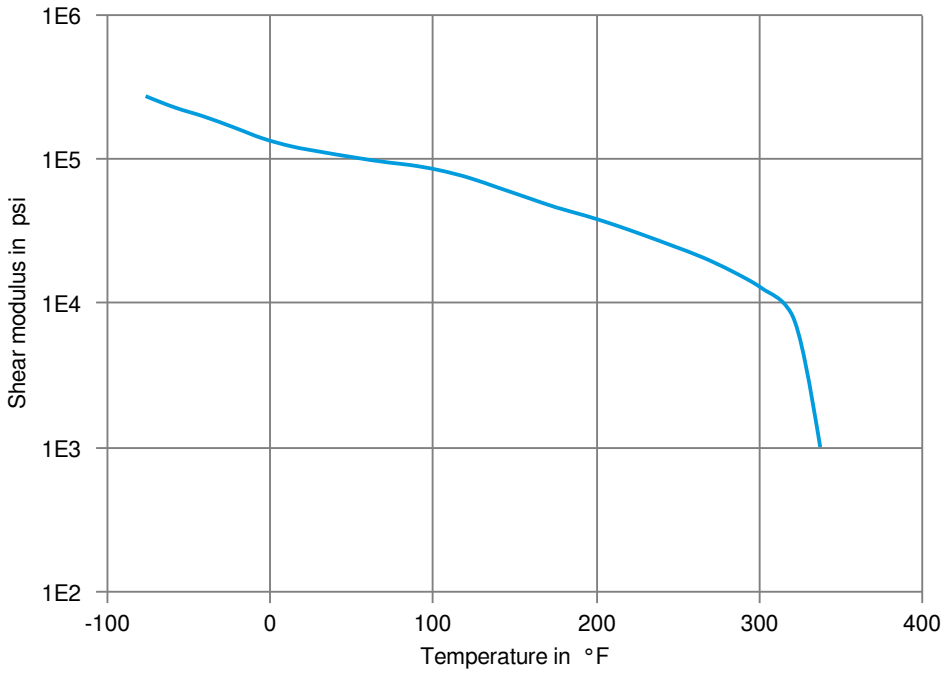
Shearstress-shear rate



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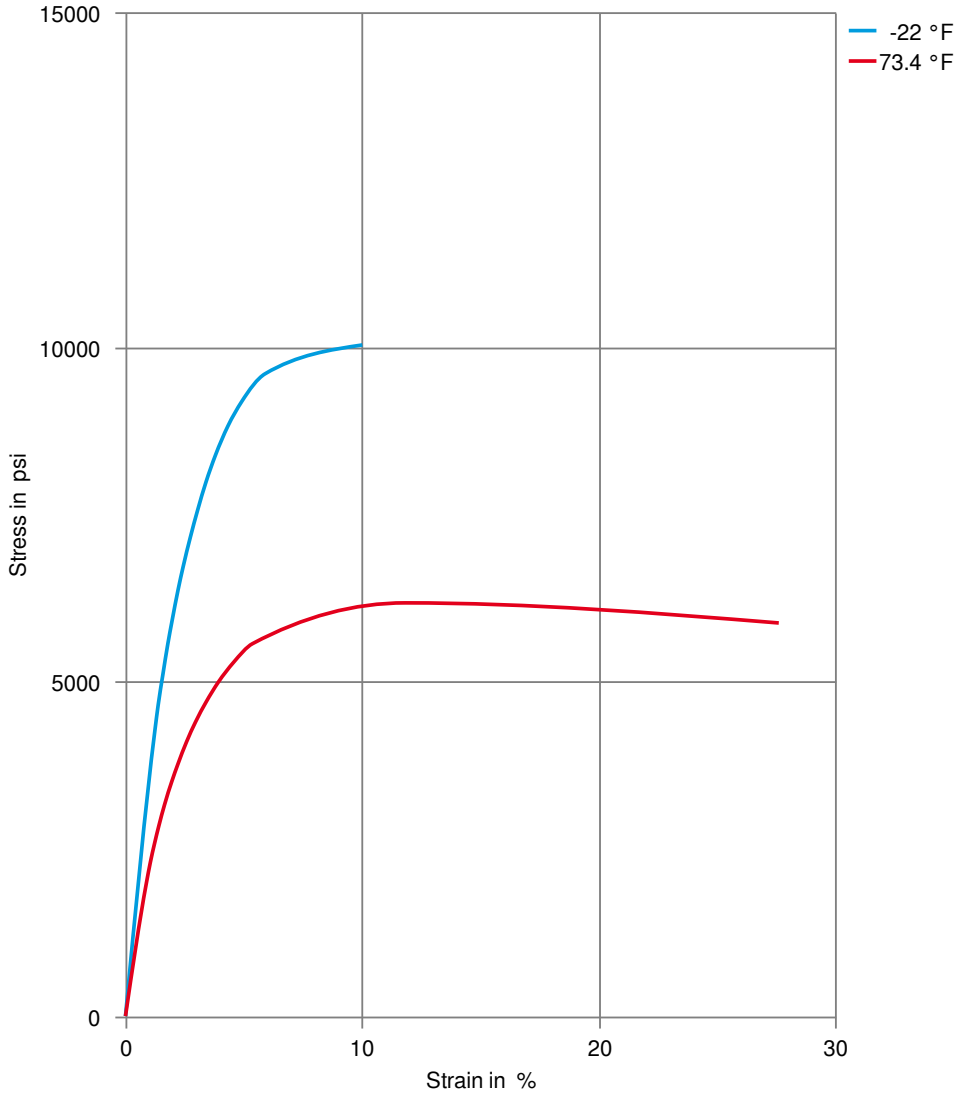
Dynamic Shear modulus-temperature



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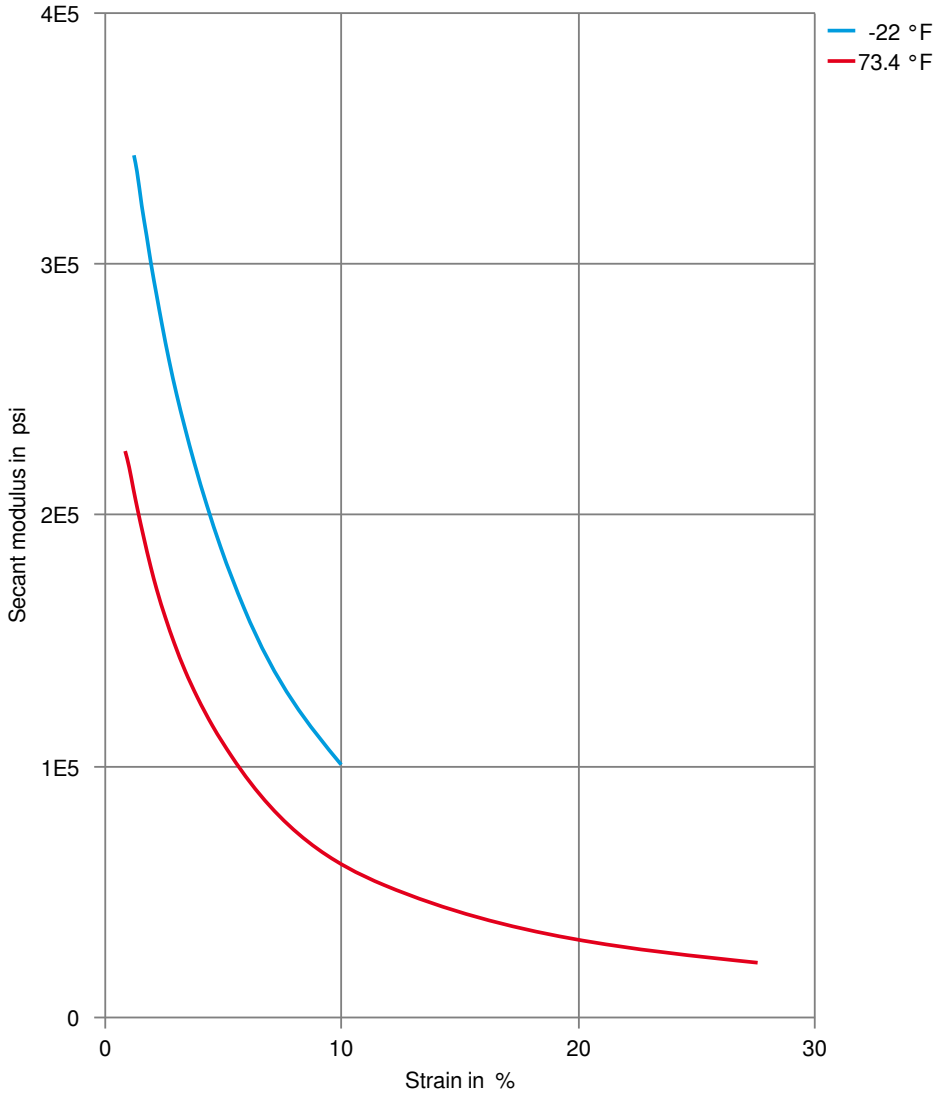
Stress-strain



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Secant modulus-strain



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