HOSTAFORM® S 27063 ECO-B

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Chemical abbreviation according to ISO 1043-1: POM-HI, Molding compound ISO 29988- POM-K, M-GNPR, 05-001 POM copolymer, modified Easy flowing, medium impact modified injection molding type with higher impact strength and slightly lower hardness, rigidity and chemical resistance than unmodified acetal copolymer; high resistance to thermal and oxidative degradation. UL-registration in natural and a thickness more than 1.57 mm as UL 94 HB. Burning rate ISO 3795 and FMVSS 302 < 100 mm/min for a thickness more than 1 mm thickness. Ranges of applications: For thin-walled molded parts with higher energy-absorbing capacity UL = Underwriters Laboratories (USA) 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-HI	ISO 1043
Part Marking Code	>POM-HI<	ISO 11469

Rheological properties

Melt volume-flow rate	21	cm^3/10min	ISO 1133
Temperature	374	°F	
Load	4.76	lb	
Molding shrinkage, parallel	1.9	%	ISO 294-4, 2577
Molding shrinkage, normal	1.8	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	283000	psi	ISO 527-1/-2
Tensile stress at yield, 50mm/min	7400	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	305000	psi	ISO 178
Tensile creep modulus, 1h	268000	psi	ISO 899-1
Tensile creep modulus, 1000h	152000	psi	ISO 899-1
Charpy impact strength, 23°C	66.6	$ftlb/in^2$	ISO 179/1eU
Charpy impact strength, -30°C	42.8	$ftlb/in^2$	ISO 179/1eU
Charpy notched impact strength, 23°C	4.28	$ftlb/in^2$	ISO 179/1eA
Charpy notched impact strength, -30°C	2.85	$ftlb/in^2$	ISO 179/1eA
Puncture energy, 23°C	8	J	ISO 6603-2
Ball indentation hardness, H 358/30	16700	psi	ISO 2039-1
Poisson's ratio	0.443		

Thermal properties

Melting temperature, 10°C/min	331	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	183	°F	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	0.67	E-4/°F	ISO 11359-1/-2

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Flammability

Burning Behav. at 1.5mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	0.0630	in	IEC 60695-11-10
Burning Behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	0.1248	in	IEC 60695-11-10
UL recognition	yes		UL 94

Electrical properties

Relative permittivity, 100Hz	4.2		IEC 62631-2-1
Relative permittivity, 1MHz	4.2		IEC 62631-2-1
Dissipation factor, 100Hz	50	E-4	IEC 62631-2-1
Dissipation factor, 1MHz	150	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

Physical/Other properties

Humidity absorption, 2mm	0.2	%	Sim. to ISO 62
Water absorption, 2mm	0.65	%	Sim. to ISO 62
Density	0.0502	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	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)	2h^2-3	s
Back pressure	290	psi

Characteristics

Processing	Injection Molding
Additives	Release agent
Special characteristics	High impact or impact modified, High Flow
Sustainability	Bio-Content

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Additional information

Processing Notes

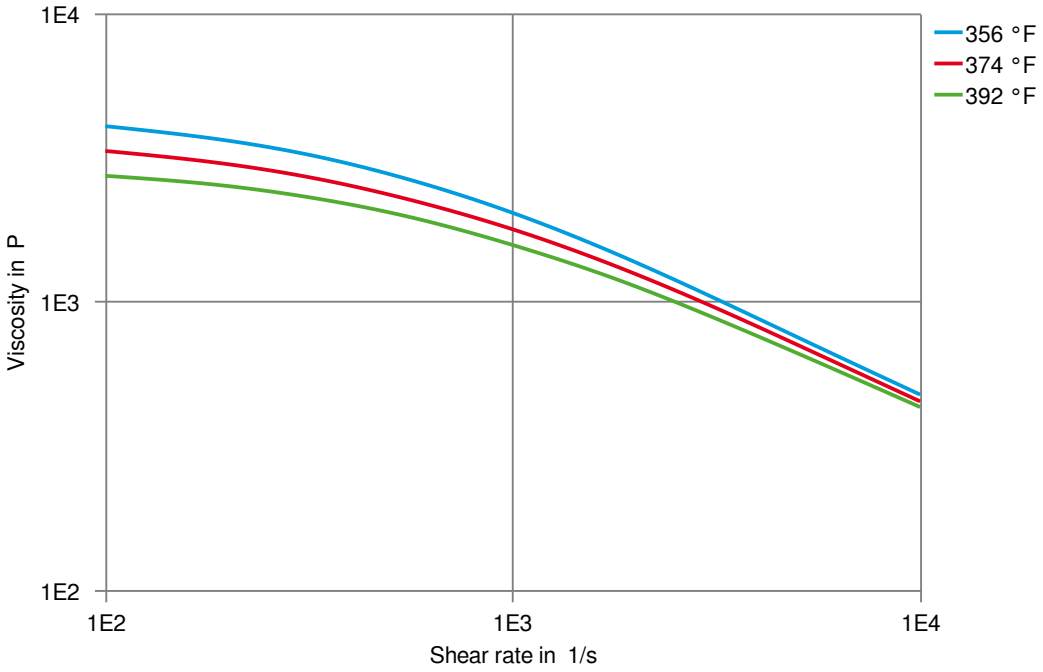
Pre-Drying

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.

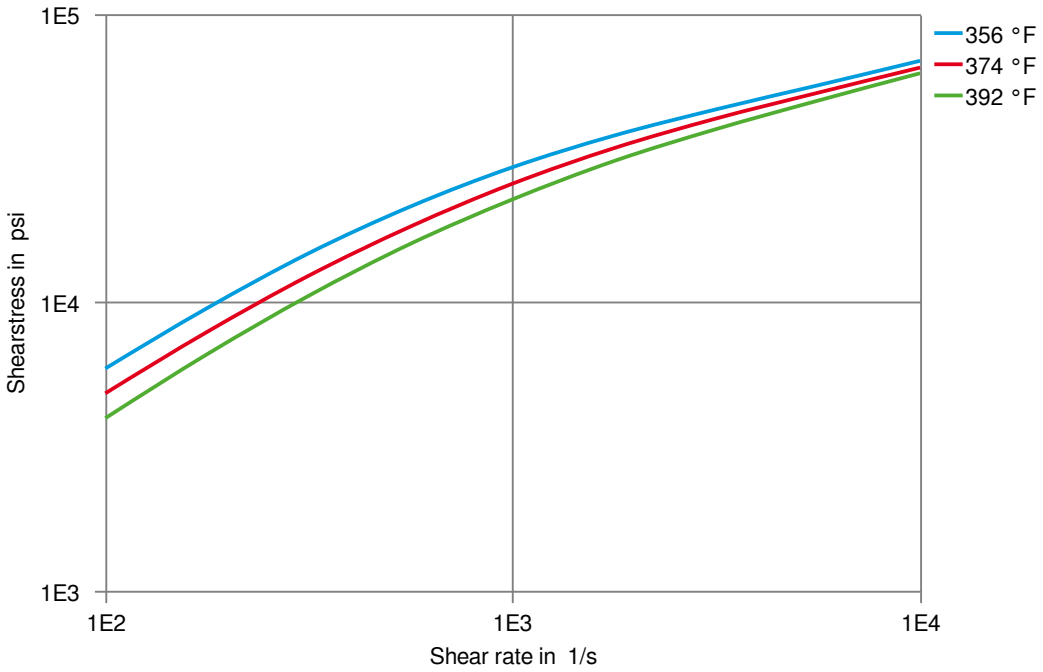
Viscosity-shear rate



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Shearstress-shear rate

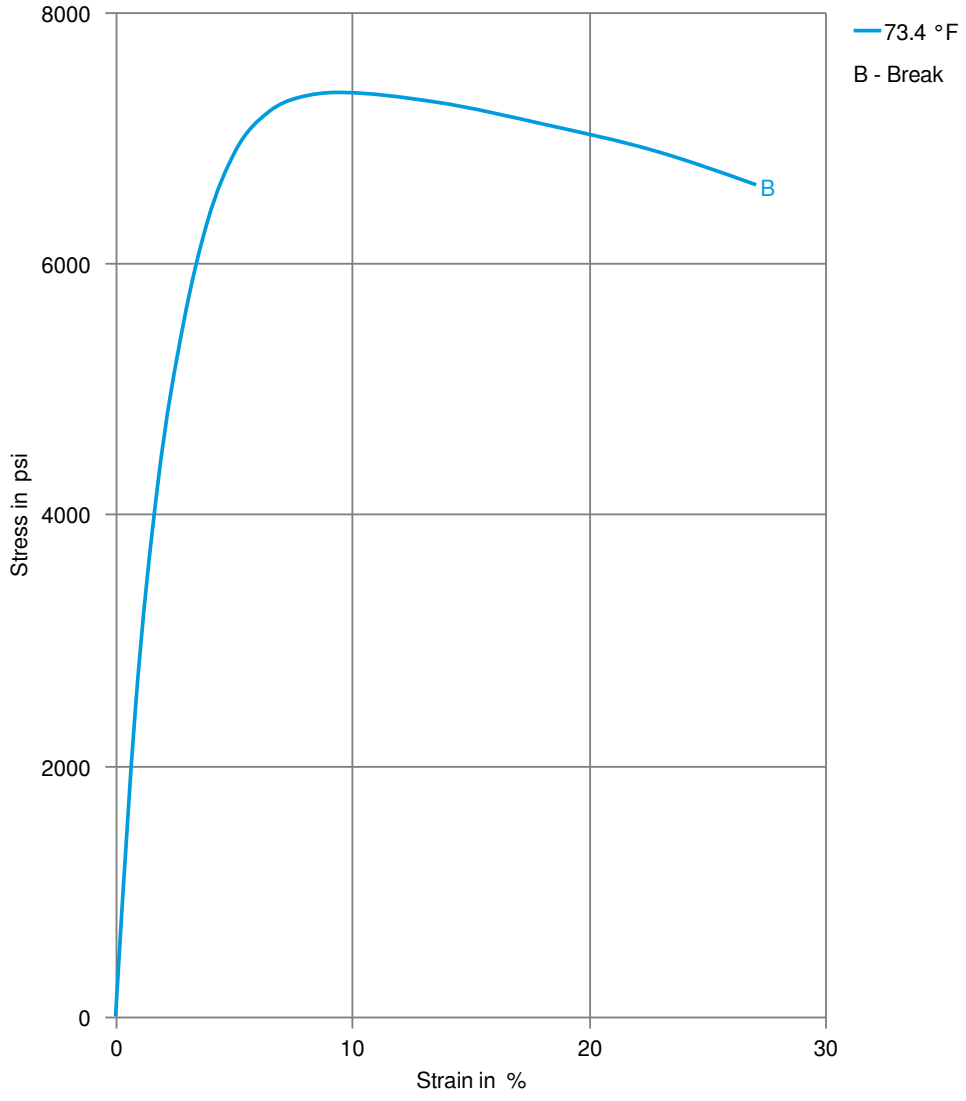


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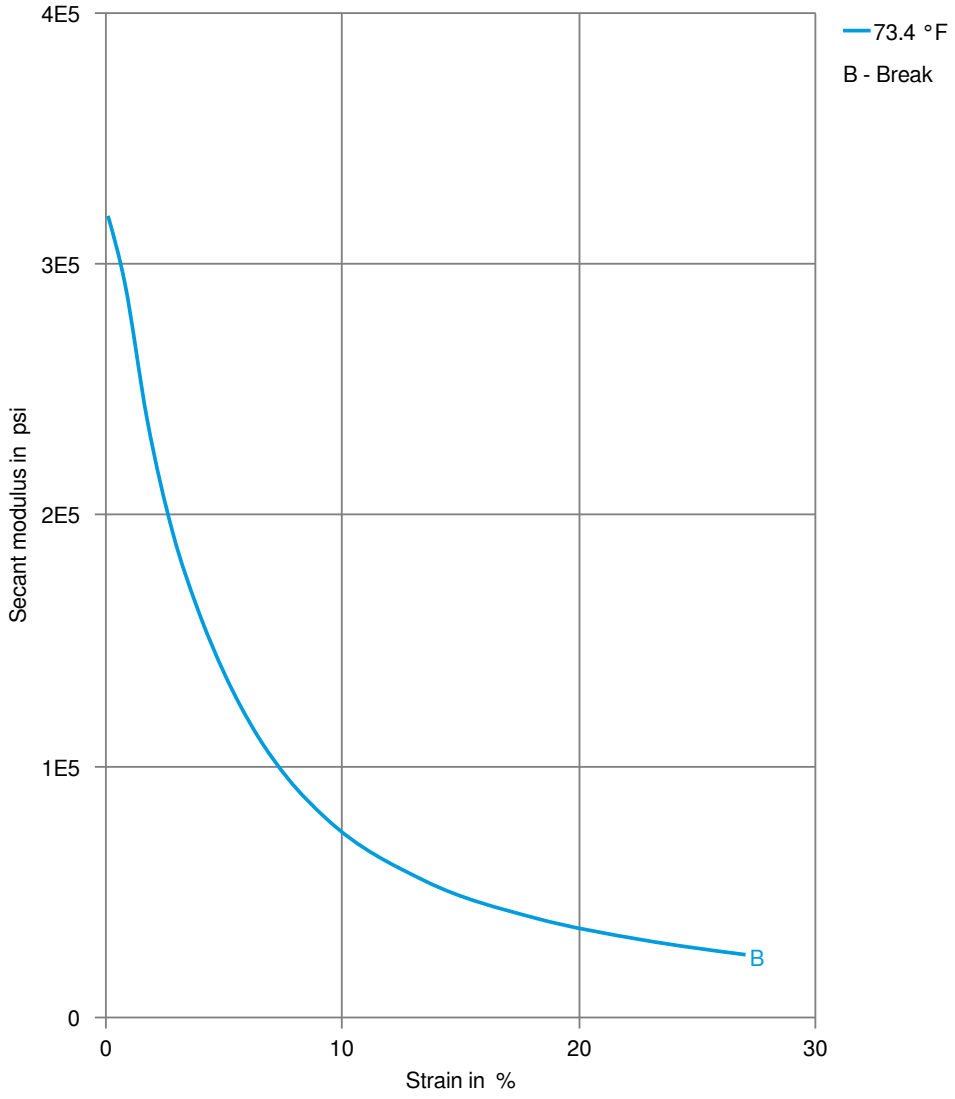
Stress-strain



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Secant modulus-strain



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