HOSTAFORM® C 9021 AW ECO-C 872

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Chemical abbreviation according to ISO 1043-1: POM Molding compound ISO 29988- POM-K, M-GNS, 03-002 POM copolymer Injection molding type with special additive modified; good chemical resistance to solvents, fuel and strong alkalis as well as good hydrolysis resistance; high resistance to thermal and oxidative degradation; good wear properties and low coefficient of friction. UL-registration in natural and black and a thickness more than 1.5 mm as UL 94 HB. Burning rate ISO 3795 and FMVSS 302 < 100 mm/min for a thickness more than 1 mm. Ranges of applications: sliding parts for window lifter. UL = Underwriters Laboratories (USA) FMVSS = Federal Motor Vehicle Safety Standard (USA)

ECO-C: Hostaform® POM C 9021 AW ECO-C 872 incorporates circular content derived from captured carbon dioxide emissions in the finished product through mass balance allocation. The product is a drop-in replacement to the standard grade with the same performance and processing properties and contributes to the displacement of virgin fossil fuel resources. The feedstock utilizing captured carbon dioxide emissions are ISCC CFC certified as low carbon intensity methanol.

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	2.1[1]	%	ISO 294-4, 2577
Molding shrinkage, normal	1.9[1]	%	ISO 294-4, 2577

[1]: @ 195°C

Typical mechanical properties

Tensile modulus	377000	psi	ISO 527-1/-2
Tensile stress at yield, 50mm/min	8400	psi	ISO 527-1/-2
Tensile strain at yield, 50mm/min	8	%	ISO 527-1/-2
Nominal strain at break	20	%	ISO 527-1/-2
Flexural modulus	363000	psi	ISO 178
Tensile creep modulus, 1h	334000	psi	ISO 899-1
Tensile creep modulus, 1000h	174000	psi	ISO 899-1
Charpy impact strength, 23°C	71.4	$ftlb/in^2$	ISO 179/1eU
Charpy impact strength, -30°C	61.8	$ftlb/in^2$	ISO 179/1eU
Charpy notched impact strength, 23°C	2.85	$ftlb/in^2$	ISO 179/1eA
Charpy notched impact strength, -30°C	2.38	$ftlb/in^2$	ISO 179/1eA
Ball indentation hardness, H 358/30	20300	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	190	°F	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	0.61	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	0.0591	in	IEC 60695-11-10
Burning Behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	0.1181	in	IEC 60695-11-10
UL recognition	yes		UL 94

Electrical properties

Relative permittivity, 100Hz	3.8		IEC 62631-2-1
Relative permittivity, 1MHz	3.8		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	0.0495	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	290	psi
Ejection temperature	275	°F

Characteristics

Processing	Injection Molding, Other Extrusion
Additives	Release agent
Special characteristics	Low wear / Low friction
Sustainability	Carbon Capture

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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

Conditioning e.g. moisturizing is not necessary.

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.

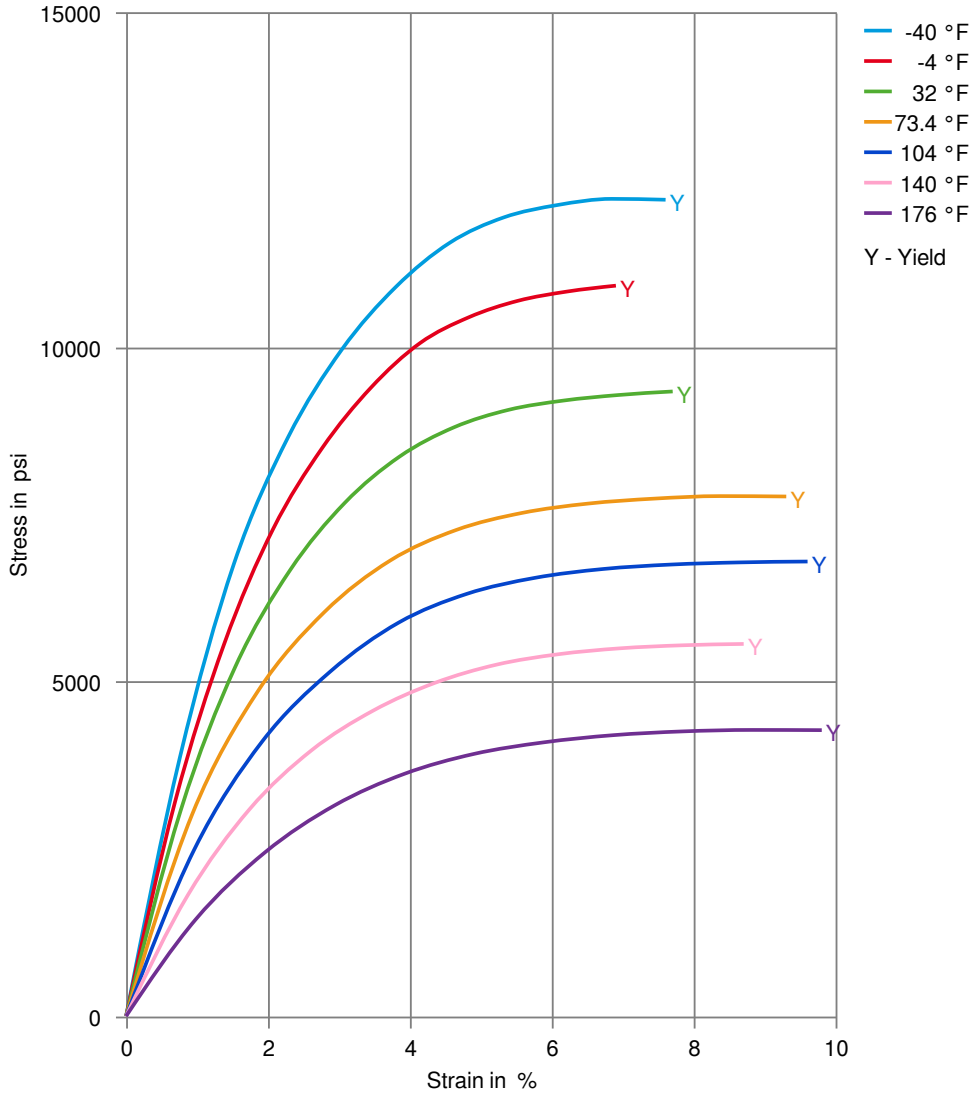
Storage

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

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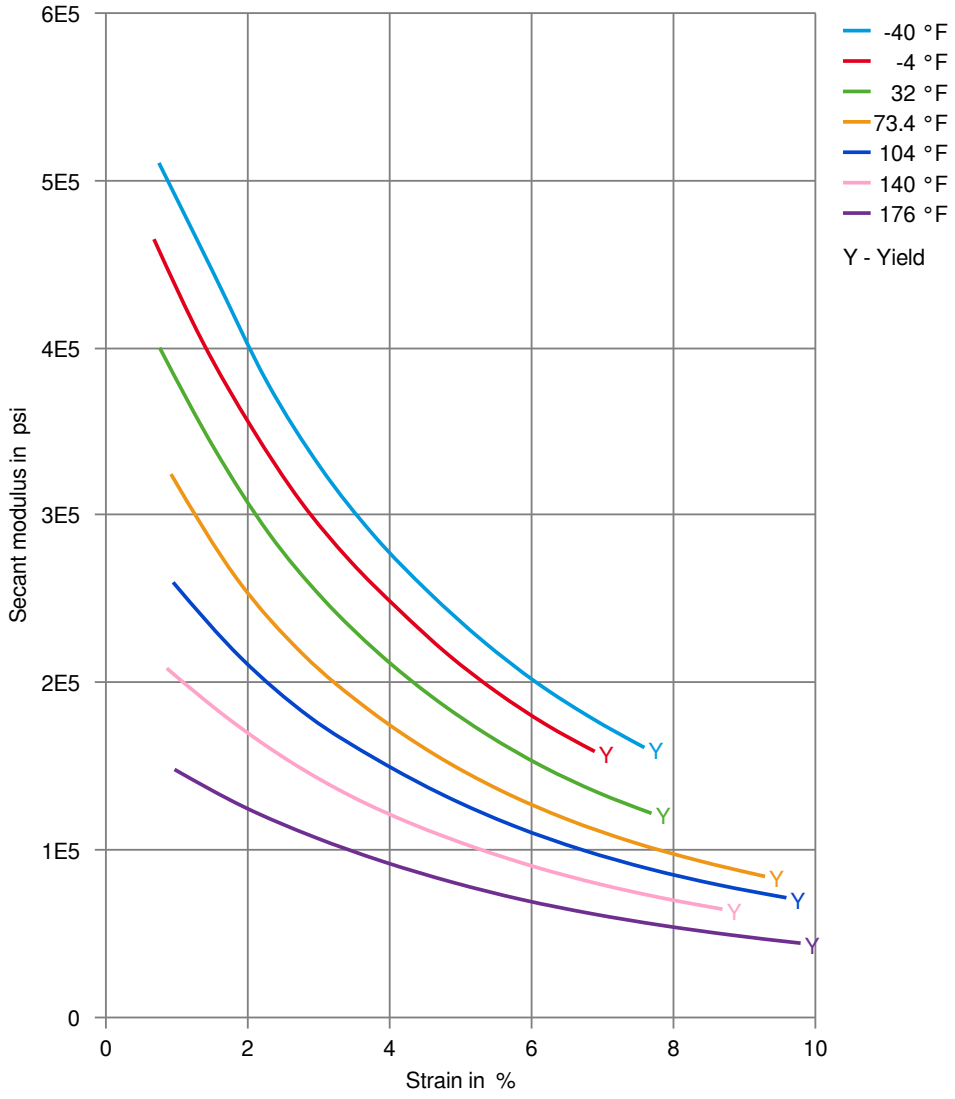
Stress-strain



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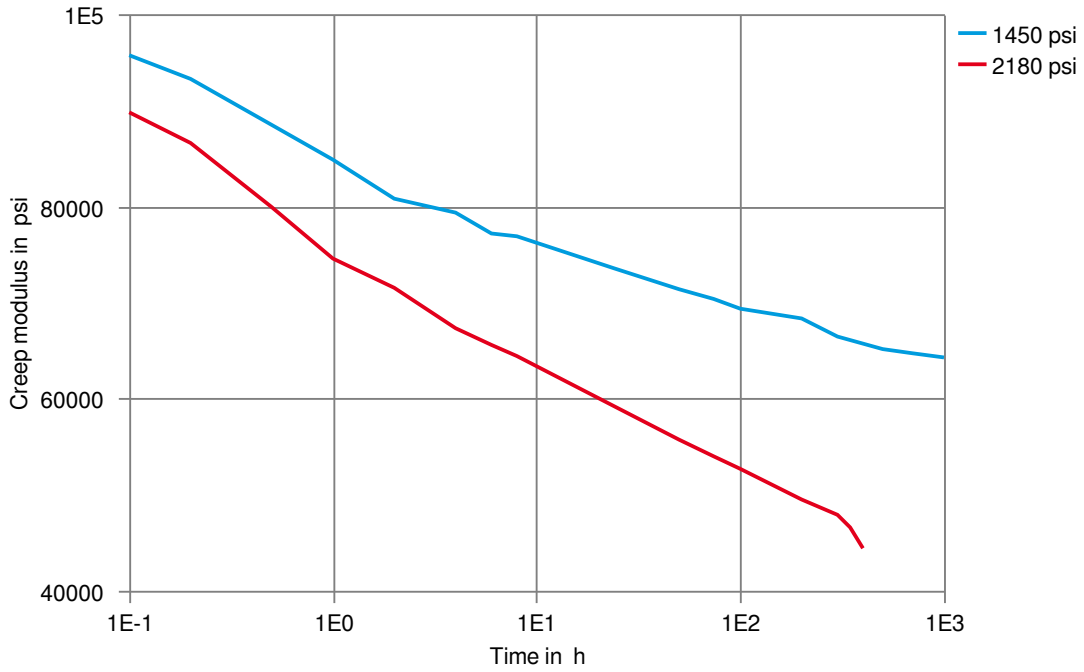
Secant modulus-strain



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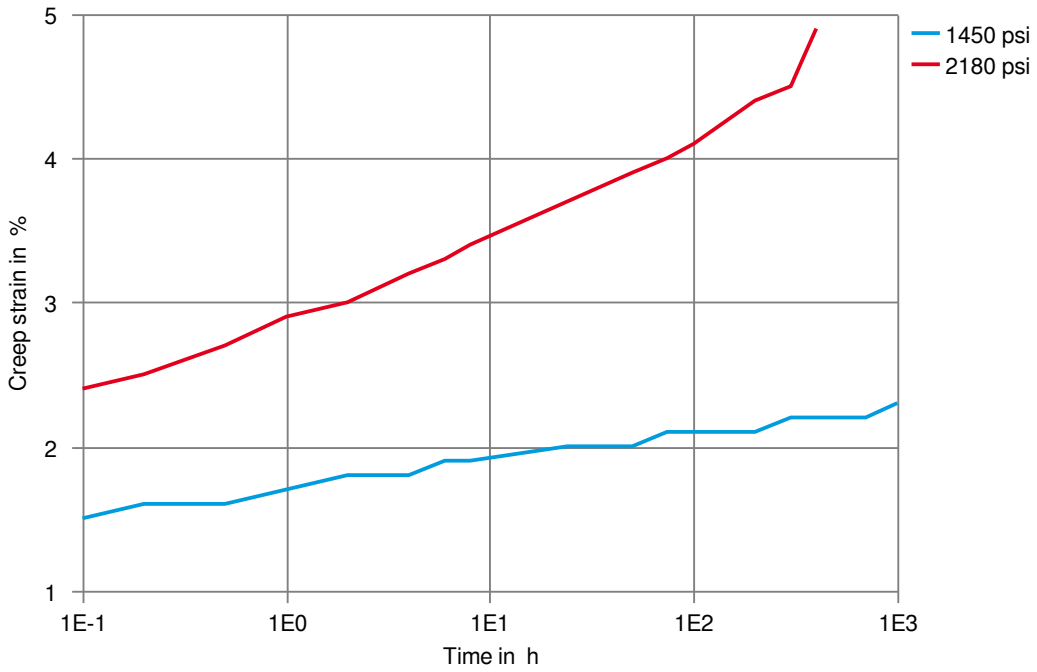
Creep modulus-time 176 °F



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Creep strain-time 176 °F



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