

HOSTAFORM® C 13031 XF | POM | Specialty

Description

Hostaform® acetal copolymer grade C13031 XF is an acetal copolymer modified to resist deterioration from aggressive fuel blends. This material is specially targeted for transportation industry fuel systems. In natural form, Hostaform® C13031 XF has a distinctive yellow color (Color code 50/5339) to denote use for fuel systems. Additionally the product is available in black 10/9022 for laser welding applications.

Physical properties	Value	Unit	Test Standard
Density	1420	kg/m ³	ISO 1183
Melt volume rate (MVR)	12	cm ³ /10min	ISO 1133
MVR test temperature	190	°C	ISO 1133
MVR test load	2.16	kg	ISO 1133
Mold shrinkage - parallel	2.2	%	ISO 294-4
Mold shrinkage - normal	1.9	%	ISO 294-4

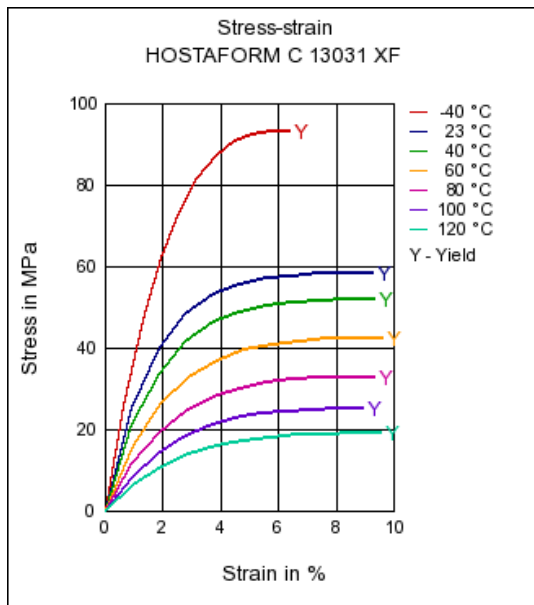
Mechanical properties	Value	Unit	Test Standard
Tensile modulus (1mm/min)	2850	MPa	ISO 527-2/1A
Tensile stress at yield (50mm/min)	62	MPa	ISO 527-2/1A
Tensile strain at yield (50mm/min)	11	%	ISO 527-2/1A
Nominal strain at break (50mm/min)	30	%	ISO 527-2/1A
Flexural modulus (23°C)	2900	MPa	ISO 178
Charpy impact strength @ 23°C	150.0	kJ/m ²	ISO 179/1eU
Charpy impact strength @ -30°C	140.0	kJ/m ²	ISO 179/1eU
Charpy notched impact strength @ 23°C	7.5	kJ/m ²	ISO 179/1eA
Charpy notched impact strength @ -30°C	6.0	kJ/m ²	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
Melting temperature (10°C/min)	170	°C	ISO 11357-1,-2,-3
DTUL @ 1.8 MPa	102	°C	ISO 75-1/-2
DTUL @ 0.45 MPa	159	°C	ISO 75-1/-2
Coeff.of linear therm. expansion (parallel)	0.9	E-4/°C	ISO 11359-2
Coeff.of linear therm. expansion (normal)	0.9	E-4/°C	ISO 11359-2

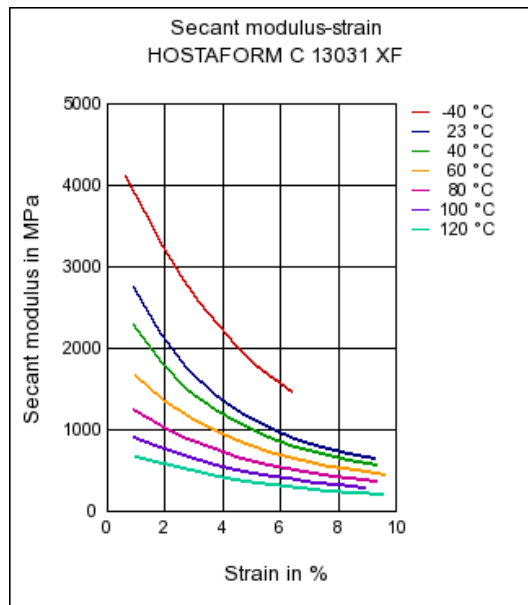
Test specimen production	Value	Unit	Test Standard
Processing conditions acc. ISO	9988-2	-	Internal

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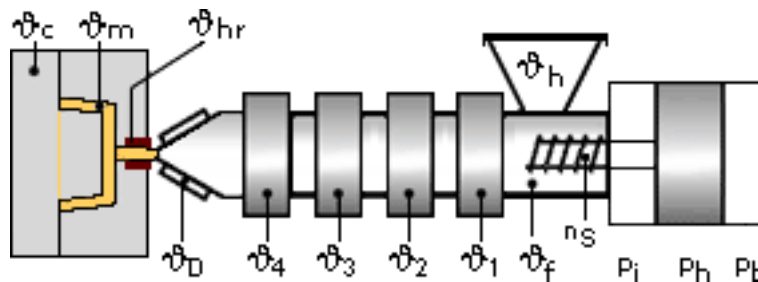
Stress-strain



Secant modulus-strain



Typical injection moulding processing conditions



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.

Drying time: 3 h

Drying temperature: 80 - 100 °C

Temperature:

	\varnothing Manifold	\varnothing Mold	\varnothing Melt	\varnothing Nozzle	\varnothing Zone4	\varnothing Zone3	\varnothing Zone2	\varnothing Zone1	\varnothing Feed	\varnothing Hopper
min (°C)	190	80	190	190	190	190	180	170	60	20
max (°C)	210	120	210	210	210	200	190	180	80	30

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Pressure:

	Inj press	Hold press	Back pressure
min (bar)	600	600	0
max (bar)	1200	1200	5

Speed:

Injection speed: slow-medium

Screw speed

Screw diameter (mm)	16	25	40	55	75
Screw speed (RPM)	-	150	100	70	-

Injection Molding

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

Melt temperature	190-230 °C
Mould temperature	80-120 °C

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General Disclaimer

NOTICE TO USERS: Values shown are based on testing of laboratory test specimens and represent data that fall within the standard range of properties for natural material. These values alone do not represent a sufficient basis for any part design and are not intended for use in establishing maximum, minimum, or ranges of values for specification purposes. Colorants or other additives may cause significant variations in data values.

Properties of molded parts can be influenced by a wide variety of factors including, but not limited to, material selection, additives, part design, processing conditions and environmental exposure. Any determination of the suitability of a particular material and part design for any use contemplated by the users and the manner of such use is the sole responsibility of the users, who must assure themselves that the material as subsequently processed meets the needs of their particular product or use.

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