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/m³	ISO 1183
Melt volume rate (MVR)	**12**	cm³/10min	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/m²	ISO 179/1eU
Charpy impact strength @ -30°C	**140.0**	kJ/m²	ISO 179/1eU
Charpy notched impact strength @ 23°C	**7.5**	kJ/m²	ISO 179/1eA
Charpy notched impact strength @ -30°C	**6.0**	kJ/m²	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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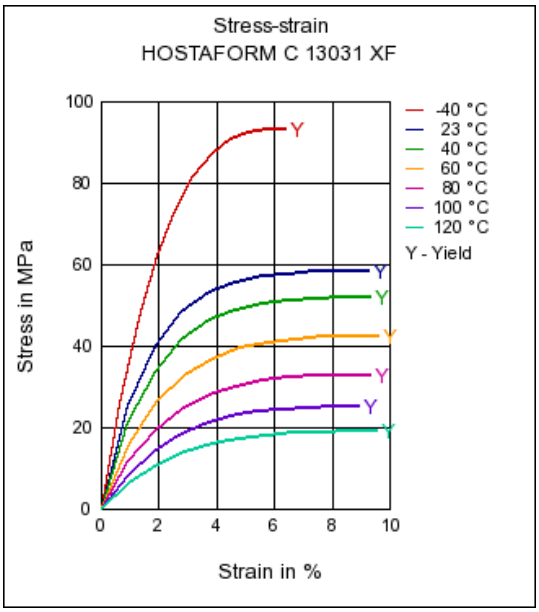
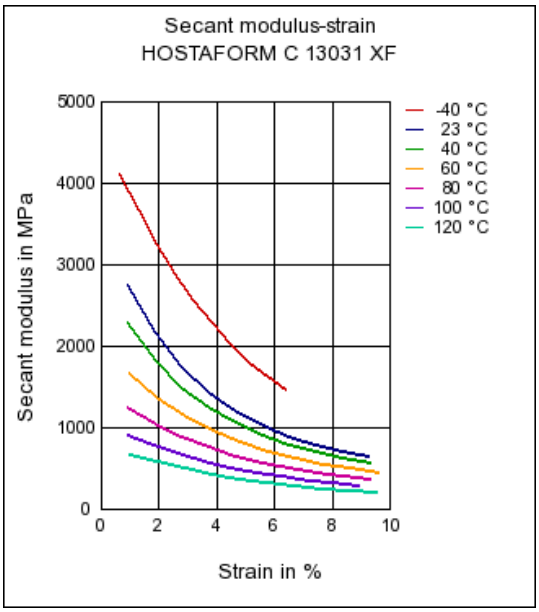
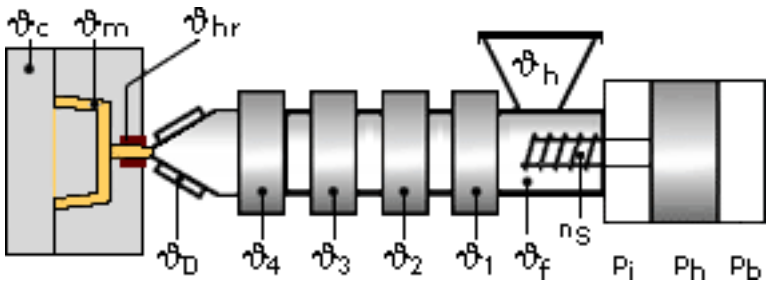
Stress-strain



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:

	ϑManifold	ϑMold	ϑMelt	ϑNozzle	ϑZone4	ϑZone3	ϑZone2	ϑZone1	ϑFeed	ϑHopper
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

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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

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Moreover, there is a need to reduce human exposure to many materials to the lowest practical limits in view of possible adverse effects. To the extent that any hazards may have been mentioned in this publication, we neither suggest nor guarantee that such hazards are the only ones that exist. We recommend that persons intending to rely on any recommendation or to use any equipment, processing technique or material mentioned in this publication should satisfy themselves that they can meet all applicable safety and health standards.
We strongly recommend that users seek and adhere to the manufacturer's current instructions for handling each material they use, and entrust the handling of such material to adequately trained personnel only. Please call the telephone numbers listed (+49 (0) 69 30516299 for Europe and +1 859-372-3244 for the Americas) for additional technical information. Call Customer Services for the appropriate Materials Safety Data Sheets (MSDS) before attempting to process our products.
The products mentioned herein are not intended for use in medical or dental implants.