

Celanese Hostaform[®] C 13031 XF

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.

Physical Properties	Metric	English	Comments
Density	1.42 g/cc	0.0513 lb/in ³	ISO 1183
Linear Mold Shrinkage, Flow	0.022 cm/cm	0.022 in/in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.019 cm/cm	0.019 in/in	ISO 294-4
Melt Flow	12 g/10 min @Load 2.16 kg, Temperature 190 °C	12 g/10 min @Load 4.76 lb, Temperature 374 °F	[cm ³ /10min]; ISO 1133
Mechanical Properties	Metric	English	Comments
Tensile Strength, Yield	62.0 MPa	8990 psi	50mm/min; ISO 527-2/1A
Elongation at Break	30 %	30 %	
Elongation at Yield	11 %	11 %	50mm/min; ISO 527-2/1A
Tensile Modulus	2.85 GPa	413 ksi	50mm/min; ISO 527-2/1A
Flexural Modulus	2.90 GPa	421 ksi	ISO 178
Charpy Impact Unnotched	15.0 J/cm ²	71.4 ft-lb/in ²	ISO 179/1eU
	14.0 J/cm ² @Temperature -30.0 °C	66.6 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eU
Charpy Impact, Notched	0.750 J/cm ²	3.57 ft-lb/in ²	ISO 179/1eA
	0.600 J/cm ² @Temperature -30.0 °C	2.86 ft-lb/in ² @Temperature -22.0 °F	ISO 179/1eA
Thermal Properties	Metric	English	Comments
CTE, linear, Parallel to Flow	90.0 µm/m·°C	50.0 µin/in·°F	ISO 11359-2
CTE, linear, Transverse to Flow	90.0 µm/m·°C	50.0 µin/in·°F	ISO 11359-2

Melting Point	170 °C	338 °F	10°C/min; ISO 11357-1,-2,-3
Deflection Temperature at 0.46 MPa (66 psi)	159 °C	318 °F	ISO 75-1, -2
Deflection Temperature at 1.8 MPa (264 psi)	102 °C	216 °F	ISO 75-1, -2

Processing Properties	Metric	English	Comments
Processing Temperature	80.0 - 120 °C	176 - 248 °F	cavity
	190 - 210 °C	374 - 410 °F	hot runner
Feed Temperature	60.0 - 80.0 °C	140 - 176 °F	
Zone 1	170 - 180 °C	338 - 356 °F	
Zone 2	180 - 190 °C	356 - 374 °F	
Zone 3	190 - 200 °C	374 - 392 °F	
Zone 4	190 - 210 °C	374 - 410 °F	
Die Temperature	190 - 210 °C	374 - 410 °F	
Melt Temperature	190 - 210 °C	374 - 410 °F	
Drying Temperature	80.0 - 100 °C	176 - 212 °F	
Dry Time	3.00 hour	3.00 hour	
Injection Pressure	60.0 - 120 MPa	8700 - 17400 psi	
Hold Pressure	60.0 - 120 MPa	8700 - 17400 psi	
Back Pressure	<= 4.00 MPa	<= 580 psi	
Screw Speed	70 rpm	70 rpm	
	@Diameter 55.0 mm	@Diameter 2.17 in	
	100 rpm	100 rpm	
	@Diameter 40.0 mm	@Diameter 1.57 in	
	150 rpm	150 rpm	
	@Diameter 25.0 mm	@Diameter 0.984 in	