

electrostatic dissipative, fuel resistant including hot diesel

Hostaform® EC140XF is a conductive ESD grade of acetal copolymer for applications requiring dissipation of static buildup. Hostaform® EC140XF has an improved resistance to aggressive fuel blends.

Rheological properties

Melt volume-flow rate Melt mass-flow rate Temperature Load Melt mass-flow rate, Temperature	4 4.5 190 2.16 190	cm ³ /10min g/10min °C kg °C	ISO 1133 ISO 1133
Moulding shrinkage range parallel	2.10	ky %	ISO 294-4 2577
Moulding shrinkage range, normal	1.9	%	ISO 294-4, 2577
Typical mechanical properties			
Tensile Modulus	2700	MPa	ISO 527-1/-2
Yield stress, 50mm/min	53	MPa	ISO 527-1/-2
Yield strain, 50mm/min	4.7	%	ISO 527-1/-2
Strain at break, 50mm/min	12	%	ISO 527-1/-2
Flexural Modulus	2650	MPa	ISO 178
Flexural Stress at 3.5%	70	MPa k I/m ²	ISU 178
Charpy Impact strength, 23°C	70	KJ/M ⁻	ISO 179/100
Izod notched impact strength 23°C	4	$k l/m^2$	ISO 179/TEA
Hardness Bockwell M-scale	4.5	NJ/III	ISO 2039-2
Poisson's ratio	0.445		100 2003 2
Thermal properties			
Melting temperature, 10°C/min	166	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.8 MPa	91	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	152	°C	ISO 75-1/-2
Vicat softening temperature, 50°C/h, 50N	148	°C	ISO 306
Coeff. of linear therm. expansion, parallel	100	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, normal	110	E-6/K	ISO 11359-1/-2
Electrical properties			
Surface resistivity	1000	Ohm	IEC 62631-3-2
Resistivity, conductive plastics	1	Ohm.m	ISO 3915







Other properties

Density	1420 kg/m ²	ISO 1183
Injection		
Drying Temperature	80 - 100 °C	
Drying Time, Dehumidified Dryer	3-4 h	
Melt Temperature Optimum	200 °C	Internal
Max. mould temperature	80 - 120 °C	
Back pressure	2 MPa	

Additional information

Injection molding

Standard reciprocating screw injection molding machines with a high compression screw (minimum 3:1 and preferably 4:1) and low back pressure (0.35 Mpa/50 PSI) are favored. Using a low compression screw (I.E. general purpose 2:1 compression ratio) can result in unmelted particles and poor melt homogeneity. Using a high back pressure to make up for a low compression ratio may lead to excessive shear heating and deterioration of the Hostaform® material.

Melt Temperature: Preferred range 182-199 C (360-390 F). Melt temperature should never exceed 230 C (450 F).

Mold Surface Temperature: Preferred range 82-93 C (180-200 F) especially with wall thickness less than 1.5 mm (0.060 in.). May require mold temperature as high as 120 C (250 F) to reproduce mold surface or to assure minimal molded in stress. Wall thickness greater than 3mm (1/8 in.) may use a cooler (65 C/150 F) mold surface temperature and wall thickness over 6mm (1/4 in.) may use a cold mold surface down to 25 C (80 F). In general, mold surface temperatures lower than 82 C (180 F) may produce a hazy surface or a surface with flow lines, pits and other included defects.







Stress-strain









Secant modulus-strain









Processing Texts

Longer pre-drying times/storage	Predrying for conductive carbon based ESD grades is required.
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Injection molding Preprocessing	Drying is highly recommended for conductive carbon based ESD grades of Hostaform®. Excessive moisture can lead to splay (silver streaking) in molded parts. For better uniformity in molding especially when using regrind or material that has been stored in containers open to the atmosphere, recommended drying conditions are 80 C (180 F) for 3 hours. Desiccant hopper dryers are not required. Maximum water content = 0.35%
Injection molding Postprocessing	Postprocessing conditioning and moisturizing are not required. It may be necessary to fixture large or complicated parts with varying wall thickness to prevent warpage while cooling to ambient temperature.

Other Approvals

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OEM	Specification	Additional Information
Bosch	N28 BN22-X005	Black
Stellantis - Chrysler	CPN 5291	Black
Continental	TST N 055 54.35	
Mercedes-Benz Group (Daimler)		Fuel (CD3068 BLK)
Stellantis - FCA Group	POM 80.45 E	







GM	GMW16278P-POM- Type C2	Black
Honda		Fuel spec
Renault		No spec listed
VW Group	TL 526 36B	
Geely	Q/JLY J7110235B	2018

Chemical Media Resistance

Standard Fuels

- ✓ ISO 1817 Liquid 1 E5, 60°C
- ✓ ISO 1817 Liquid 2 M15E4, 60°C
- ✓ ISO 1817 Liquid 3 M3E7, 60°C
- ✓ ISO 1817 Liquid 4 M15, 60°C
- ✓ Standard fuel without alcohol (pref. ISO 1817 Liquid C), 23°C
- ✓ Standard fuel with alcohol (pref. ISO 1817 Liquid 4), 23°C

Symbols used:

✓ possibly resistant

Defined as: Supplier has sufficient indication that contact with chemical can be potentially accepted under the intended use conditions and expected service life. Criteria for assessment have to be indicated (e.g. surface aspect, volume change, property change).

★ not recommended - see explanation

Defined as: Not recommended for general use. However, short-term exposure under certain restricted conditions could be acceptable (e.g. fast cleaning with thorough rinsing, spills, wiping, vapor exposure).





