

## HOSTAFORM® EC140XF - POM

### Description

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

Physical properties	Value	Unit	Test Standard
Density	1420	kg/m <sup>3</sup>	ISO 1183
Melt flow rate, MFR	4.5	g/10min	ISO 1133
MFR temperature	190	°C	ISO 1133
MFR load	2.16	kg	ISO 1133
Melt volume rate, MVR	4	cm <sup>3</sup> /10min	ISO 1133
MVR temperature	190	°C	ISO 1133
MVR load	2.16	kg	ISO 1133
Molding shrinkage, parallel	2.1	%	ISO 294-4, 2577
Molding shrinkage, normal	1.9	%	ISO 294-4, 2577

Mechanical properties	Value	Unit	Test Standard
Tensile modulus	2700	MPa	ISO 527-2/1A
Tensile stress at yield, 50mm/min	53	MPa	ISO 527-2/1A
Tensile strain at yield, 50mm/min	4.7	%	ISO 527-2/1A
Tensile strain at break, 50mm/min	12	%	ISO 527-2/1A
Flexural modulus, 23°C	2650	MPa	ISO 178
Flexural stress at 3.5% strain	70	MPa	ISO 178
Charpy impact strength, 23°C	70	kJ/m <sup>2</sup>	ISO 179/1eU
Charpy notched impact strength, 23°C	4	kJ/m <sup>2</sup>	ISO 179/1eA
Izod impact notched, 23°C	4.5	kJ/m <sup>2</sup>	ISO 180/1A
Rockwell hardness	75	M-Scale	ISO 2039-2

Thermal properties	Value	Unit	Test Standard
Melting temperature, 10°C/min	166	°C	ISO 11357-1/-3
DTUL at 1.8 MPa	91	°C	ISO 75-1, -2
DTUL at 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	1	E-4/°C	ISO 11359-2
Coeff. of linear therm expansion, normal	1.1	E-4/°C	ISO 11359-2

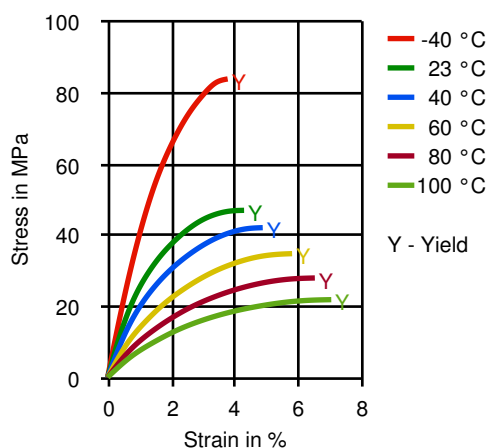
Electrical properties	Value	Unit	Test Standard
Volume resistivity	5	Ohm*m	IEC 60093
Surface resistivity	1000	Ohm	IEC 60093

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

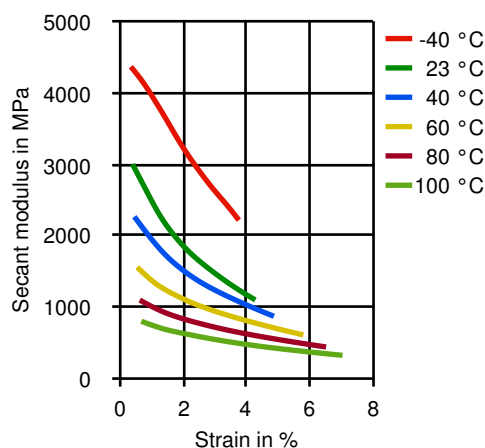
## HOSTAFORM® EC140XF - POM

### Diagrams

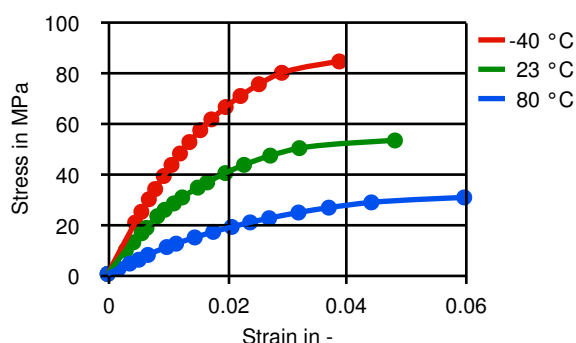
#### Stress-strain



#### Secant modulus-strain



#### True Stress-strain



#### Typical injection moulding processing conditions

Pre Drying	Value	Unit	Test Standard
Drying time	3 - 4	h	-
Drying temperature	100 - 120	°C	-
Temperature	Value	Unit	Test Standard
Zone1 temperature	170 - 180	°C	-
Zone2 temperature	180 - 190	°C	-
Zone3 temperature	190 - 200	°C	-
Zone4 temperature	190 - 210	°C	-
Die temperature	190 - 210	°C	-
Melt temperature	190 - 210	°C	-
Cavity temperature	80 - 120	°C	-
Hot runner temperature	190 - 210	°C	-
Pressure	Value	Unit	Test Standard
Back pressure max.	20	bar	-

#### Other text information

##### Longer pre-drying times/storage

Predrying for conductive carbon based ESD grades is required.

##### 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

---

## HOSTAFORM® EC140XF - POM

---

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.

---

### Characteristics

---

#### Product Categories

Specialty

#### Delivery Form

Pellets

---

#### Processing

Injection molding

---

#### Contact Information

---

##### Americas

8040 Dixie Highway  
Florence, KY 41042 USA  
Product Information Service  
t: +1-800-833-4882  
t: +1-859-372-3244  
Customer Service  
t: +1-800-526-4960  
t: +1-859-372-3214  
e: info-engineeredmaterials-am@celanese.com

##### Asia

4560 Jinke Road  
Zhang Jiang Hi Tech Park  
Shanghai 201203 PRC  
Customer Service  
t: +86 21 3861 9266  
f: +86 21 3861 9599  
e: info-engineeredmaterials-asia@celanese.com

##### Europe

Am Unisys-Park 1  
65843 Sulzbach, Germany  
Product Information Service  
t: +49-800-86427-531  
t: +49-(0)-69-45009-1011  
e: info-engineeredmaterials-eu@celanese.com

---

### 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. To the best of our knowledge, the information contained in this publication is accurate; however, we do not assume any liability whatsoever for the accuracy and completeness of such information. The information contained in this publication should not be construed as a promise or guarantee of specific properties of our products. It is the sole responsibility of the users to investigate whether any existing patents are infringed by the use of the materials mentioned in this publication. 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 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.

---

### Trademark

---

© 2014 Celanese or its affiliates. All rights reserved. (Published 27.July.2016). Celanese®, registered C-ball design and all other trademarks identified herein with ®, TM, SM, unless otherwise noted, are trademarks of Celanese or its affiliates. Fortron is a registered trademark of Fortron Industries LLC.