

## HOSTAFORM® EC140CF10 - POM

### Description

Hostaform® acetal copolymer grade EC140CF10 is a 10% carbon fiber reinforced grade for increase strength, stiffness and electrical conductivity. Preliminary Data Sheet

Physical properties	Value	Unit	Test Standard
Density	1440	kg/m <sup>3</sup>	ISO 1183
Melt volume rate, MVR	12	cm <sup>3</sup> /10min	ISO 1133
MVR temperature	190	°C	ISO 1133
MVR load	2,16	kg	ISO 1133
Molding shrinkage, parallel	0,8	%	ISO 294-4, 2577
Molding shrinkage, normal	1,0	%	ISO 294-4, 2577

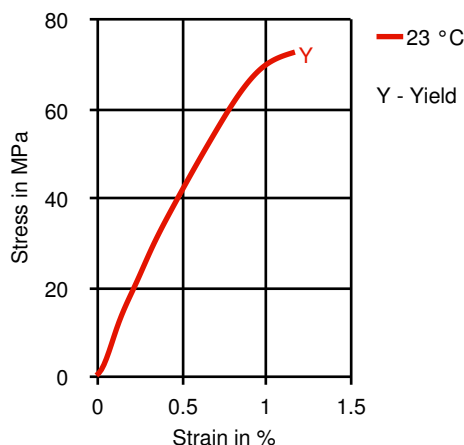
Mechanical properties	Value	Unit	Test Standard
Tensile modulus	8500	MPa	ISO 527-2/1A
Tensile stress at break, 5mm/min	70	MPa	ISO 527-2/1A
Tensile strain at break, 5mm/min	1,5	%	ISO 527-2/1A
Flexural modulus, 23 °C	8500	MPa	ISO 178
Charpy notched impact strength, 23 °C	3,2	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30 °C	3,2	kJ/m <sup>2</sup>	ISO 179/1eA

Thermal properties	Value	Unit	Test Standard
Melting temperature, 10 °C/min	165	°C	ISO 11357-1/-3
DTUL at 1.8 MPa	158	°C	ISO 75-1, -2
DTUL at 0.45 MPa	162	°C	ISO 75-1, -2
Coeff. of linear therm expansion, parallel	0,3	E-4/°C	ISO 11359-2
Coeff. of linear therm expansion, normal	1	E-4/°C	ISO 11359-2

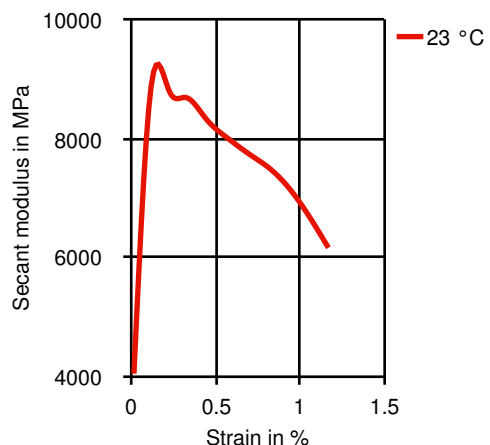
Electrical properties	Value	Unit	Test Standard
Volume resistivity	20	Ohm*m	IEC 60093
Surface resistivity	1000	Ohm	IEC 60093

### Diagrams

#### Stress-strain



#### Secant modulus-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	-

## HOSTAFORM® EC140CF10 - POM

Zone2 temperature	180 - 190	°C	-
Zone3 temperature	180 - 190	°C	-
Zone4 temperature	190 - 200	°C	-
Nozzle temperature	190 - 200	°C	-
Melt temperature	180 - 200	°C	-
Mold temperature	80 - 120	°C	-
Hot runner temperature	190 - 210	°C	-
<b>Pressure</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Back pressure max.	20	bar	-
<b>Speed</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Injection speed	slow	-	-

### Other text information

#### 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.

### Characteristics

#### Product Categories

Specialty

#### Delivery Form

Pellets

#### Processing

Injection molding

### Contact Information

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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. 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

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