



## Celcon® GC10

Celanese Corporation - Acetal (POM) Copolymer

Saturday, November 2, 2019

### General Information

#### Product Description

Celcon® GC10 acetal copolymer is a 10% glass reinforced acetal for improved strength and stiffness. Chemical abbreviation according to ISO 1043-1: POM

#### General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • North America • Asia Pacific • Latin America
Filler / Reinforcement	• Glass Fiber, 10% Filler by Weight
Features	• Good Stiffness • Good Strength
RoHS Compliance	• Contact Manufacturer
Resin ID (ISO 1043)	• POM

### ASTM & ISO Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density	1.46	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	1.2	%	
Flow	0.90	%	
Water Absorption (Saturation, 73°F)	0.80	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	653000	psi	ISO 527-2/1A
Tensile Stress (Break)	10900	psi	ISO 527-2/1A/5
Tensile Strain (Break)	3.0	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	616000	psi	ISO 178
Flexural Stress (3.5% Strain)	16700	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	2.1	ft-lb/in <sup>2</sup>	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	21	ft-lb/in <sup>2</sup>	
73°F	14	ft-lb/in <sup>2</sup>	
Notched Izod Impact Strength (73°F)	2.3	ft-lb/in <sup>2</sup>	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	311	°F	ISO 75-2/A
Vicat Softening Temperature	322	°F	ISO 306/B50
Melting Temperature <sup>2</sup>	331	°F	ISO 11357-3
Melting Temperature	331	°F	
CLTE - Flow	2.9E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	6.7E-5	in/in/°F	ISO 11359-2

### Processing Information

Injection	Nominal Value	Unit
Drying Temperature	212 to 248	°F

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Injection	Nominal Value	Unit
Drying Time	3.0 to 4.0	hr
Rear Temperature	338 to 356	°F
Middle Temperature	356 to 374	°F
Front Temperature	356 to 374	°F
Nozzle Temperature	374 to 392	°F
Processing (Melt) Temp	356 to 392	°F
Mold Temperature	194 to 248	°F
Injection Rate	Slow	
Back Pressure	< 290	psi

### Injection Notes

Zone4 temperature: 190 to 200°C  
Hot runner temperature: 190 to 210°C

### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 10°C/min