



## Celcon® GC15

Celanese Corporation - Acetal (POM) Copolymer

Saturday, November 2, 2019

### General Information

#### Product Description

Celcon® GC15 is an acetal copolymer grade utilizing a nominal 15 wt. % fiber glass level to increase stiffness and strength. Chemical abbreviation according to ISO 1043-1: POM

#### General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Filler / Reinforcement	• Glass Fiber		
RoHS Compliance	• Contact Manufacturer		
Resin ID (ISO 1043)	• POM		

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

Physical	Nominal Value	Unit	Test Method
Density	1.50	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow	0.90	%	
Flow	0.50	%	
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	863000	psi	ISO 527-2/1A
Tensile Stress (Break)	13200	psi	ISO 527-2/1A/5
Tensile Strain (Break)	2.5	%	ISO 527-2/1A/5
Flexural Modulus (73°F)	848000	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	2.3	ft·lb/in <sup>2</sup>	ISO 179/1eA
Notched Izod Impact Strength (73°F)	2.5	ft·lb/in <sup>2</sup>	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	318	°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	333	°F	
CLTE - Flow	2.6E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	5.6E-5	in/in/°F	ISO 11359-2

### Processing Information

Injection	Nominal Value	Unit
Drying Temperature	212 to 248	°F
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

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Injection	Nominal Value	Unit
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