

Celcon® GC10

Acetal (POM) Copolymer

Celanese Corporation

Message:

Celcon® GC10 acetal copolymer is a 10% glass reinforced acetal for improved strength and stiffness.

Chemical abbreviation according to ISO 1043-1: POM

General Information			
UL YellowCard	E38860-239296		
Filler / Reinforcement	Glass fiber reinforced material, 10% filler by weight		
Features	Rigid, good		
	Good strength		
RoHS Compliance	Contact manufacturer		
Multi-Point Data	Isothermal Stress vs. Strain (ISO 11403-1)		
Resin ID (ISO 1043)	POM		
Physical	Nominal Value	Unit	Test Method
Density	1.46	g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Vertical flow direction	1.2	%	ISO 294-4
Flow direction	0.90	%	ISO 294-4
Water Absorption			ISO 62
Saturated, 23°C	0.80	%	ISO 62
Equilibrium, 23°C, 50% RH	0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	4500	MPa	ISO 527-2/1A/1
Tensile Stress (Break)	75.0	MPa	ISO 527-2/1A/5
Tensile Strain (Break)	3.0	%	ISO 527-2/1A/5
Flexural Modulus (23°C)	4250	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	4.5	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	45	kJ/m ²	ISO 179/1eU
23°C	30	kJ/m ²	ISO 179/1eU
Notched Izod Impact (23°C)	4.8	kJ/m ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	155	°C	ISO 75-2/A
Melting Temperature ¹	166	°C	ISO 11357-3
Linear thermal expansion coefficient			ISO 11359-2
Flow	5.3E-5	cm/cm/°C	ISO 11359-2

Lateral	1.2E-4	cm/cm/°C	ISO 11359-2
Injection	Nominal Value	Unit	
Drying Temperature	80.0 - 100	°C	
Drying Time	3.0	hr	
Rear Temperature	170 - 180	°C	
Middle Temperature	180 - 190	°C	
Front Temperature	180 - 190	°C	
Nozzle Temperature	190 - 200	°C	
Processing (Melt) Temp	180 - 200	°C	
Mold Temperature	90.0 - 120	°C	
Injection Pressure	90.0 - 140	MPa	
Injection Rate	Slow		
Holding Pressure	90.0 - 140	MPa	
Back Pressure	0.00 - 0.500	MPa	
Injection instructions			
Manifold Temperature: 190 to 210°C Zone 4 Temperature: 190 to 200°C			
NOTE			
1.	10°C/min		

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