

Celcon® GC25TF

Acetal (POM) Copolymer

Celanese Corporation

Message:

Celcon® GC25TF is a 25% glass coupled acetal copolymer formulated for higher flow in thin walled and small parts. Celcon GC25TF is also exceptionally resistant to fuel. It offers excellent resistance to transportation fuels especially oxygenated fuels.

Chemical abbreviation according to ISO 1043-1: POM

General Information			
UL YellowCard	E38860-239299		
Filler / Reinforcement	Glass fiber reinforced material, 25% filler by weight		
Features	Chemical coupling		
	High liquidity		
	Fuel resistance		
Uses	Thin wall parts		
RoHS Compliance	Contact manufacturer		
Resin ID (ISO 1043)	POM		
Physical	Nominal Value	Unit	Test Method
Specific Gravity			
--	1.58	g/cm ³	ASTM D792
--	1.57	g/cm ³	ISO 1183
Molding Shrinkage			ASTM D955
Flow	0.40	%	ASTM D955
Transverse flow	1.0	%	ASTM D955
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	8720	MPa	ISO 527-2/1A/1
Tensile Strength			
Yield, 23°C	117	MPa	ASTM D638
Fracture	120	MPa	ISO 527-2/1A/5
Tensile Strain (Break)	2.0	%	ISO 527-2/1A/5, ISO 527-2/1A/50
Flexural Modulus (23°C)	8710	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	6.4	kJ/m ²	ISO 179/1eA
Notched Izod Impact (23°C)	6.4	kJ/m ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			

1.8 MPa, not annealed	118	°C	ASTM D648
1.8 MPa, not annealed	162	°C	ISO 75-2/A
Melting Temperature			
-- ¹	165	°C	ISO 11357-3
--	166	°C	ASTM D3418
Linear thermal expansion coefficient			ISO 11359-2
Flow	3.0E-5	cm/cm/°C	ISO 11359-2
Lateral	1.0E-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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