

Celcon® M50

Acetal (POM) Copolymer

Celanese Corporation

Message:

Celcon® M50 is a extrusion and injection molding grade with an intermediate viscosity for good processability with higher toughness than general purpose grades.

Chemical abbreviation according to ISO 1043-1: POM

General Information			
UL YellowCard	E38860-239310		
Features	Workability, good		
	Good toughness		
	Medium viscosity		
RoHS Compliance	Contact manufacturer		
Processing Method	Extrusion		
	Injection molding		
Resin ID (ISO 1043)	POM		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.41	g/cm ³	ASTM D792, ISO 1183
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	4.30	cm ³ /10min	ISO 1133
Molding Shrinkage			ASTM D955
Flow	2.2	%	ASTM D955
Transverse flow	1.8	%	ASTM D955
Water Absorption			ISO 62
Saturated, 23°C	0.75	%	ISO 62
Equilibrium, 23°C, 50% RH	0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2500	MPa	ISO 527-2/1A/1
Tensile Strength			
Yield, -40°C	94.5	MPa	ASTM D638
Yield, 23°C	60.7	MPa	ASTM D638
Yield, 71°C	34.5	MPa	ASTM D638
Yield	63.0	MPa	ISO 527-2/1A/50
Tensile Strain (Yield)	12	%	ISO 527-2/1A/50
Flexural Modulus (23°C)	2400	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (23°C)	8.5	kJ/m ²	ISO 179/1eA
Notched Izod Impact (23°C)	7.5	kJ/m ²	ISO 180/1A

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
1.8 MPa, not annealed	110	°C	ASTM D648
1.8 MPa, not annealed	97.0	°C	ISO 75-2/A
Melting Temperature ¹	165	°C	ISO 11357-3
Linear thermal expansion coefficient			ISO 11359-2
Flow	1.0E-4	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	80.0 - 120	°C	
Injection Pressure	60.0 - 120	MPa	
Injection Rate	Slow-Moderate		
Holding Pressure	60.0 - 120	MPa	
Back Pressure	0.00 - 0.500	MPa	
Injection instructions			
Manifold Temperature: 180 to 200°C Zone 4 Temperature: 190 to 200°C			
NOTE			
1.	10°C/min		

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

