



Celcon® M50

Celanese Corporation - Acetal (POM) Copolymer

Saturday, November 2, 2019

General Information

Product Description

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

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Good Processability	• High Toughness	• Medium Viscosity
RoHS Compliance	• Contact Manufacturer		
Processing Method	• Extrusion	• Injection Molding	
Resin ID (ISO 1043)	• POM		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density	1.41	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	4.30	cm ³ /10min	ISO 1133
Water Absorption (Saturation, 73°F)	0.75	%	ISO 62
Water Absorption (Equilibrium, 73°F, 50% RH)	0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	363000	psi	ISO 527-2/1A
Tensile Stress (Yield)	9140	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	12	%	ISO 527-2/1A/50
Flexural Modulus (73°F)	348000	psi	ISO 178
Flexural Stress (3.5% Strain)	9280	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	4.0	ft-lb/in ²	ISO 179/1eA
Notched Izod Impact Strength (73°F)	3.6	ft-lb/in ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	207	°F	ISO 75-2/A
Vicat Softening Temperature	322	°F	ISO 306/B50
Melting Temperature ²	331	°F	ISO 11357-3
Melting Temperature	333	°F	
CLTE - Flow	5.6E-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	176 to 248	°F
Injection Rate	Slow-Moderate	
Back Pressure	< 580	psi

Injection Notes

Zone4 temperature: 190 to 200°C
Hot runner temperature: 180 to 200°C

Notes

¹ Typical properties: these are not to be construed as specifications.

² 10°C/min