



## Celcon® M90SW

Celanese Corporation - Acetal (POM) Copolymer

Saturday, November 2, 2019

### General Information

#### Product Description

Celcon M90SW is a low wear grade designed for gears and other low wear applications, especially where reducing noise and wear against the same mating surface is important. This grade may be preferred in high load-low velocity applications. Celcon® M90SW is an option where silicone or PTFE based wear resistant products are not acceptable. Please also see Hostaform® C 9021 SW.

#### General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Features	• Wear Resistant		
Uses	• Gears		
RoHS Compliance	• Contact Manufacturer		

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

Physical	Nominal Value	Unit	Test Method
Density	1.41	g/cm <sup>3</sup>	ISO 1183
Melt Volume-Flow Rate (MVR) (190°C/2.16 kg)	8.00	cm <sup>3</sup> /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.6	%	
Flow	2.0	%	

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	377000	psi	ISO 527-2/1A
Tensile Stress (Yield)	7110	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	8.0	%	ISO 527-2/1A/50
Flexural Modulus (73°F)	371000	psi	ISO 178
Compressive Stress			ISO 604
1% Strain	3050	psi	
6% Strain	10400	psi	

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength (73°F)	2.4	ft-lb/in <sup>2</sup>	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-22°F	43	ft-lb/in <sup>2</sup>	
73°F	50	ft-lb/in <sup>2</sup>	
Notched Izod Impact Strength (73°F)	2.6	ft-lb/in <sup>2</sup>	ISO 180/1A

Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	194	°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	329	°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

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Injection	Nominal Value	Unit
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
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

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 10°C/min