



Celcon® LW90

Celanese Corporation - Acetal (POM) Copolymer

Saturday, November 2, 2019

General Information

Product Description

Celcon® LW90 is a nominal 9 melt flow rate based material specifically formulated for high speed, low wear applications against metals. LW90 conforms to applicable FDA regulations governing food contact. Chemical abbreviation according to ISO 1043-1: POM

General

Material Status	• Commercial: Active
Availability	• Africa & Middle East • Europe • Asia Pacific • Latin America • North America
Features	• Food Contact Acceptable • Wear Resistant
Agency Ratings	• FDA Food Contact, Unspecified Rating
RoHS Compliance	• Contact Manufacturer
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)	8.00	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 294-4
Across Flow	1.5	%	
Flow	1.8	%	
Water Absorption (Saturation, 73°F)	0.65	%	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)	9280	psi	ISO 527-2/1A/50
Tensile Strain (Yield)	9.0	%	ISO 527-2/1A/50
Flexural Modulus (73°F)	377000	psi	ISO 178

Impact	Nominal Value	Unit	Test Method
Notched Izod Impact Strength			ISO 180/1A
-22°F	2.7	ft-lb/in ²	
73°F	2.7	ft-lb/in ²	

Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature (264 psi, Unannealed)	208	°F	ISO 75-2/A
Vicat Softening Temperature	322	°F	ISO 306/B50
Melting Temperature	329	°F	
CLTE - Flow	6.1E-5	in/in/°F	ISO 11359-2
CLTE - Transverse	6.7E-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

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Injection	Nominal Value	Unit
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
Flow temperature: 174°C

Notes

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