CELCON® M90LF

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Celcon® acetal copolymer grade M90LF is a medium viscosity polymer formulated without lubricants, providing optimum performance in injection molding and extrusion of thin walled tubing and thin gauge film.

Product information

Resin Identification	POM		ISO 1043
Part Marking Code	>POM<		ISO 11469

Rheological properties

Melt volume-flow rate	8	cm^3/10min	ISO 1133
Temperature	374	°F	
Load	4.76	lb	
Molding shrinkage, parallel	2.0	%	ISO 294-4, 2577
Molding shrinkage, normal	1.9	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	406000	psi	ISO 527-1/-2
Tensile stress at yield, 50mm/min	9600	psi	ISO 527-1/-2
Tensile strain at yield, 50mm/min	9	%	ISO 527-1/-2
Charpy notched impact strength, 23°C	2.85	ftlb/in^2	ISO 179/1eA

Thermal properties

Melting temperature, 10°C/min	333	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	214	°F	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	0.67	E-4/°F	ISO 11359-1/-2
Coefficient of linear thermal expansion (CLTE), normal	0.667	E-4/°F	ISO 11359-1/-2

Physical/Other properties

Density	0.0509	lb/in^3	ISO 1183

Injection

Drying Recommended	no	
Drying Temperature	212	°F
Drying Time, Dehumidified Dryer	3 - 4	h
Processing Moisture Content	≤0.2	%
Melt Temperature Optimum	374	°F
Min. melt temperature	356	°F
Max. melt temperature	392	°F
Max. screw tangential speed	≤0.3	m/s
Mold Temperature Optimum	212	°F
Min. mold temperature	176	°F
Max. mold temperature	248	°F
Hold pressure range	8700 - 17400	psi
Hold Pressure Time (h is the max. wall thickness of the part in mm)	$2h^2$-3	s
Back pressure	72.5	psi

Revised: 2025-07-10 Source: Celanese Materials Database

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Characteristics

Processing	Injection Molding

Additional information

Processing Notes

Pre-Drying

Drying is not normally required. If material has come in contact with moisture through improper storage or handling or through regrind use, drying may be necessary to prevent splay and odor problems.

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