CELCON® F40-34

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- A standard unfilled and extra easy-flowing (ultra low-viscosity) grade for general injection molding
- Suitable for multi-cavity molds and thin-walled precision parts

Product information

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

Rheological properties

Melt mass-flow rate	75	g/10min	ISO 1133
Melt mass-flow rate, Temperature	374	°F	
Melt mass-flow rate, Load	4.76	lb	
Molding shrinkage, parallel	2.0	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	421000	psi	ISO 527-1/-2
Tensile stress at yield, 50mm/min	9400	psi	ISO 527-1/-2
Tensile strain at yield, 50mm/min	7	%	ISO 527-1/-2
Nominal strain at break	13	%	ISO 527-1/-2
Flexural modulus	392000	psi	ISO 178
Flexural strength	13500	psi	ISO 178
Charpy notched impact strength, 23°C	1.66	ftlb/in²	ISO 179/1eA
Charpy notched impact strength, -30°C	1.05	ftlb/in²	ISO 179/1eA
Poisson's ratio	0.418		

Thermal properties

Melting temperature, 10°C/min	329	°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

Electrical properties

Volume resistivity	1E12	Ohm.m	IEC 62631-3-1
Surface resistivity	1E16	Ohm	IEC 62631-3-2
Electric strength	483	kV/in	IEC 60243-1

Physical/Other properties

Humidity absorption, 2mm	0.2	%	Sim. to ISO 62
Density	0.0509	lb/in³	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	383	°F
Min. melt temperature	356	°F
Max. melt temperature	410	°F

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Max. screw tangential speed	≤0.3	m/s
Mold Temperature Optimum	158	°F
Min. mold temperature	140	°F
Max. mold temperature	176	°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	290	psi

Characteristics

Processing	Injection Molding
Special characteristics	High Flow

Additional information

Injection molding

Processing

mold temperature: 60ºC ~ 80ºC (140ºF ~ 160ºF)
barrel temperature: 170ºC ~ 210ºC (338ºF ~ 410ºF)
screw speed: 150mm/s ~ 200mm/s
back pressure: max. 20bar

Processing Notes

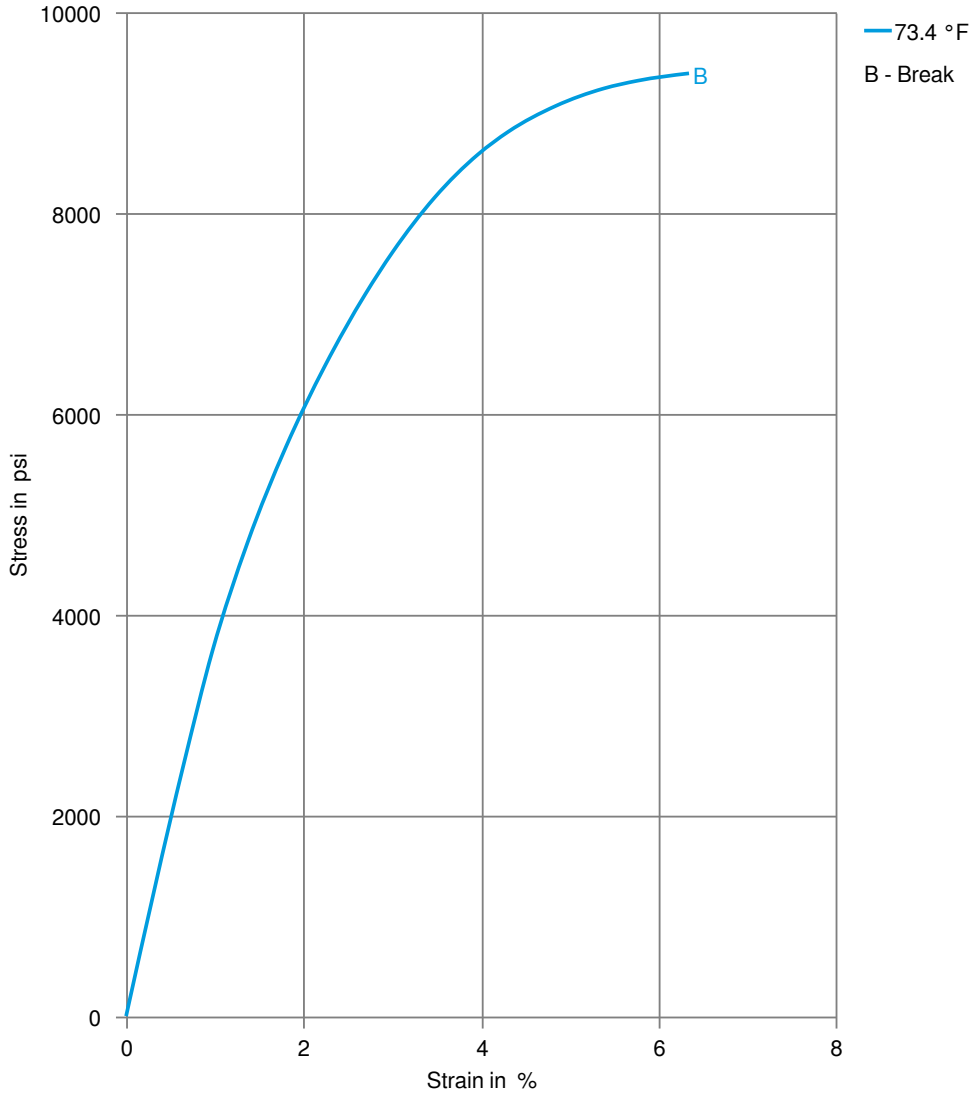
Pre-Drying

suggested pre-drying condition: 80 ºC ~ 90 ºC (176ºF ~ 194ºF) 3 h ~ 4 h
suggested max. moisture:0.1%

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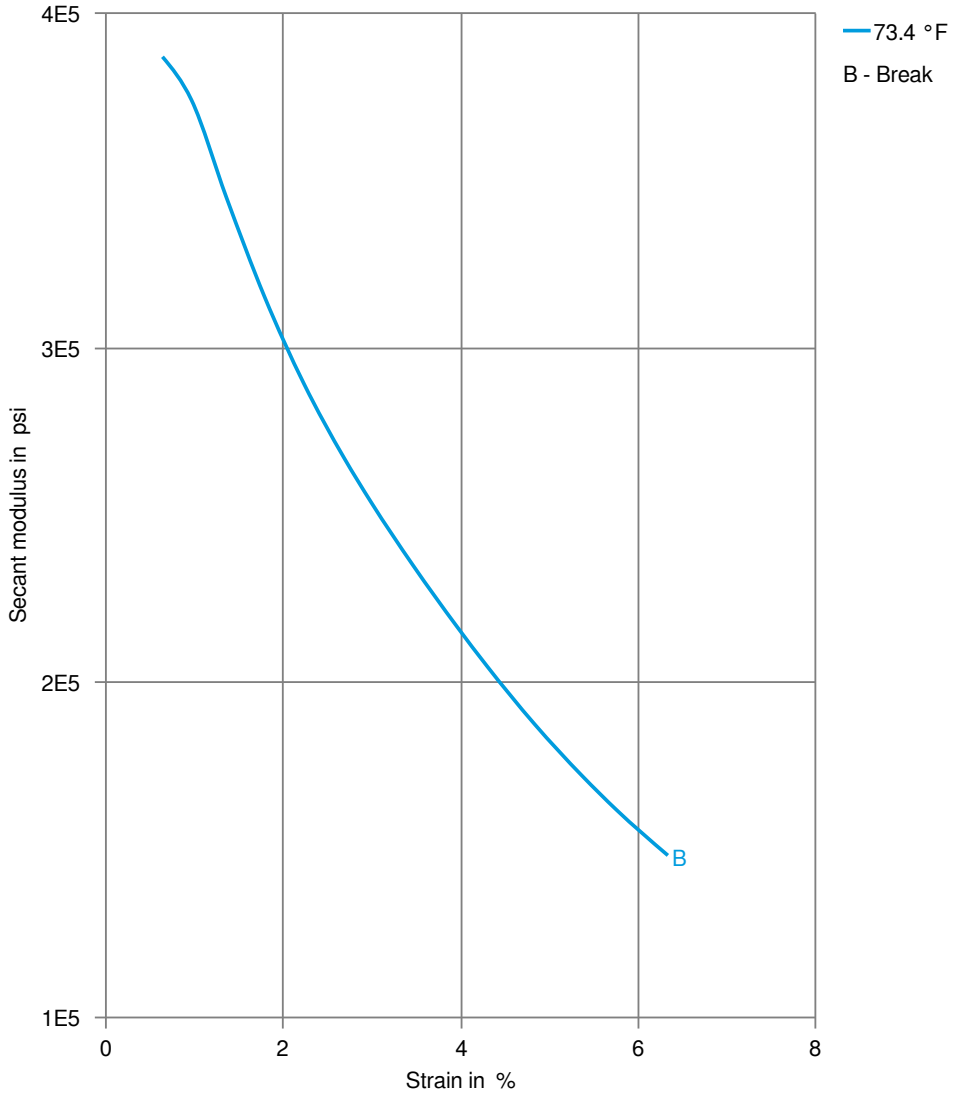
Stress-strain



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Secant modulus-strain



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