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The chemistry inside innovation™

CELCON® TC3020

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CELCON® TC3020 is a Polyoxymethylene (POM) grade reinforced with 20% talcum. Offers excellent thermal stability and stronger resistance to alkalis than acetal homopolymer. Possesses wide range of working temperature and high tolerance to organic chemicals. Exhibits fatigue-, creep resistance and better flow enabling high speed production. Shows resistance to friction and wear. Is suitable for processing by injection molding. Used in electrical & electronics, automotive and industrial parts. Recommended for parts requiring dimensional stability and low stress deformation.

Product information

Resin Identification	POM-T20		ISO 1043
Part Marking Code	>POM-T20<		ISO 11469

Rheological properties

Melt mass-flow rate	5	g/10min	ISO 1133
Melt mass-flow rate, Temperature	374	°F	
Melt mass-flow rate, Load	4.76	lb	
Molding shrinkage, parallel	1.4	%	ISO 294-4, 2577

Typical mechanical properties

Tensile stress at break, 5mm/min	9720	psi	ISO 527-1/-2
Nominal strain at break	5.6	%	ISO 527-1/-2
Flexural modulus	767000	psi	ISO 178
Flexural strength	16200	psi	ISO 178
Charpy notched impact strength, 23°C	1.81	ftlb/in²	ISO 179/1eA
Poisson's ratio	0.366		

Thermal properties

Melting temperature, 10°C/min	329	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	252	°F	ISO 75-1/-2

Physical/Other properties

Humidity absorption, 2mm	0.2	%	Sim. to ISO 62
Density	0.0563	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
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)	2h²-3	s

Revised: 2025-01-23 Source: Celanese Materials Database

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Characteristics

Processing	Injection Molding
Special characteristics	Low wear / Low friction

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