Celanese
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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	190	°C	
Melt mass-flow rate, Load	2.16	kg	
Moulding shrinkage, parallel	1.4	%	ISO 294-4, 2577

Typical mechanical properties

Tensile stress at break, 5mm/min	67	MPa	ISO 527-1/-2
Nominal strain at break	5.6	%	ISO 527-1/-2
Flexural modulus	5290	MPa	ISO 178
Flexural strength	110	MPa	ISO 178
Charpy notched impact strength, 23°C	3.8	kJ/m²	ISO 179/1eA
Poisson's ratio	0.366		

Thermal properties

Melting temperature, 10°C/min	165	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	122	°C	ISO 75-1/-2

Physical/Other properties

Humidity absorption, 2mm	0.2	%	Sim. to ISO 62
Density	1560	kg/m³	ISO 1183

Injection

Drying Recommended	no	
Drying Temperature	100	°C
Drying Time, Dehumidified Dryer	3 - 4	h
Processing Moisture Content	≤0.2	%
Melt Temperature Optimum	195	°C
Min. melt temperature	180	°C
Max. melt temperature	210	°C
Screw tangential speed	≤0.3	m/s
Mold Temperature Optimum	70	°C
Min. mould temperature	60	°C
Max. mould temperature	80	°C
Hold pressure range	60 - 120	MPa

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Characteristics

Processing	Injection Moulding
Delivery form	Pellets
Additives	Mineral Filler
Special characteristics	Low wear / Low friction