Celanese
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CELCON® TX-21

CELCON®

A polymer modified wear resistance grade (medium viscosity) for general injection molding. Suitable for applications requiring reduced wear noise and a strong friction and wear resistance without sacrificing mechanical proeprties.

Product information

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

Rheological properties

Melt mass-flow rate	16	g/10min	ISO 1133
Melt mass-flow rate, Temperature	190	°C	
Melt mass-flow rate, Load	2.16	kg	
Moulding shrinkage, parallel	2.0	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	2500	MPa	ISO 527-1/-2
Tensile stress at yield, 50mm/min	58	MPa	ISO 527-1/-2
Tensile strain at yield, 50mm/min	10	%	ISO 527-1/-2
Nominal strain at break	33	%	ISO 527-1/-2
Flexural modulus	2350	MPa	ISO 178
Flexural strength	79	MPa	ISO 178
Charpy notched impact strength, 23°C	7.5	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	5	kJ/m²	ISO 179/1eA
Poisson's ratio	0.38[C]		

[C]: Calculated

Thermal properties

Melting temperature, 10°C/min	165	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	89	°C	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	130	E-6/K	ISO 11359-1/-2

Electrical properties

Volume resistivity	1E12	Ohm.m	IEC 62631-3-1
Surface resistivity	1E16	Ohm	IEC 62631-3-2

Physical/Other properties

Humidity absorption, 2mm	0.2	%	Sim. to ISO 62
Density	1390	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

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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

Characteristics

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

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