Celanese
The chemistry inside innovation™

CELCON® FC2010

CELCON®

- Carbon fiber reinforced
- High stiffness

Product information

Resin Identification	POM-CF10	ISO 1043
Part Marking Code	>POM-CF10<	ISO 11469

Rheological properties

Moulding shrinkage, parallel	0.7	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	10000	MPa	ISO 527-1/-2
Tensile stress at break, 5mm/min	125	MPa	ISO 527-1/-2
Nominal strain at break	1.2	%	ISO 527-1/-2
Flexural modulus	8500	MPa	ISO 178
Flexural strength	200	MPa	ISO 178
Charpy notched impact strength, 23 °C	4	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30 °C	4	kJ/m²	ISO 179/1eA
Poisson's ratio	0.34[C]		

[C]: Calculated

Thermal properties

Melting temperature, 10 °C/min	165	°C	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	160	°C	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	20	E-6/K	ISO 11359-1/-2

Electrical properties

Surface resistivity	100000	Ohm	IEC 62631-3-2

Physical/Other properties

Water absorption, 2mm	0.2	%	Sim. to ISO 62
Density	1430	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
Special characteristics	Increased electrical conductivity

Additional information

Processing Notes

Pre-Drying

Being a non-hydroscopic material, KEPITAL® in its original packages can be processed without pre-drying unless it is exposed to a humid atmosphere for a prolonged periods of time. However, sometimes moisture that exists on the surface of pellet caused by improper handling or storage may result in a silver streak or nozzle drooling, so drying prior to molding may be necessary to prevent KEPITAL® from having these problems. In addition, in some cases, pre-drying is effective in reducing odor, mold deposits and in achieving improved surface appearance quality. Drying conditions are recommended at 80-90 °C for 3-4 hours.

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