CELCON® FL2020

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CELCON® FL2020 is a 20% PTFE powder filled grade. It is a medium-low viscosity grade for general injection molding and suitable for parts requiring low wear and friction.

Product information

Resin Identification	(POM+PTFE)	ISO 1043
Part Marking Code	>(POM+PTFE)<	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	2.0	%	ISO 294-4, 2577

Typical mechanical properties

Tensile stress at yield, 50mm/min	6500	psi	ISO 527-1/-2
Tensile strain at yield, 50mm/min	10	%	ISO 527-1/-2
Nominal strain at break	15	%	ISO 527-1/-2
Flexural modulus	312000	psi	ISO 178
Flexural strength	10200	psi	ISO 178
Charpy notched impact strength, 23°C	1.43	ftlb/in²	ISO 179/1eA

Thermal properties

Melting temperature, 10°C/min	329	°F	ISO 11357-1/-3

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	0.18	%	Sim. to ISO 62
Density	0.0545	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

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Hold Pressure Time (h is the max. wall thickness of the part in mm)	$2h^2$-3 s

Automotive

OEM	STANDARD	ADDITIONAL INFORMATION
General Motors	Natural, Special Parts Approval, See Your CE Account Representative for Further Details.	
Hyundai	MS237-05 Type D	Pyeongtaek,Korea
Renault	UB19a-S1, Pyeongtaek, Korea, Parts With Friction Requirements, No Spec, Special Part Approval, See Your CE Account Manager.	

Characteristics

Processing	Injection Molding
Special characteristics	U.V. stabilized or stable to weather, Low wear / Low friction

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