CELCON® F20-51U

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CELCON® F20-51U is a UV-stabilized and impact-improved medium-viscosity grade for general injection molding (black-colored). Suitable for uses requiring strong weather resistance. Developed for applications in automotive exteriors and exposed parts.

Product information

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

Rheological properties

Melt mass-flow rate	11	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	8000	psi	ISO 527-1/-2
Tensile strain at yield, 50mm/min	10	%	ISO 527-1/-2
Nominal strain at break	40	%	ISO 527-1/-2
Flexural modulus	326000	psi	ISO 178
Flexural strength	10900	psi	ISO 178
Charpy notched impact strength, 23°C	4.04	ftlb/in²	ISO 179/1eA
Poisson's ratio	0.471		

Thermal properties

Melting temperature, 10°C/min	329	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	192	°F	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	0.72	E-4/°F	ISO 11359-1/-2

Electrical properties

Electric strength	483	kV/in	IEC 60243-1

Physical/Other properties

Humidity absorption, 2mm	0.2	%	Sim. to ISO 62
Density	0.0498	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

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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)	$2h^2$-3	s

Automotive

OEM	STANDARD	ADDITIONAL INFORMATION
General Motors	GMW22P-POM-C2P1	Black
Hyundai	MS237-09 Type B	Pyeongtaek,Korea

Characteristics

Processing	Injection Molding
Special characteristics	High impact or impact modified, Light stabilized or stable to light, U.V. stabilized or stable to weather

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