CELCON® TE-21

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CELCON® TE-21 is a toughened, medium-viscosity grade for general injection molding. Suitable for applications requiring high impact resistance and toughness

Product information

Resin Identification	POM-HI		ISO 1043
Part Marking Code	>POM-HI<		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	1.7	%	ISO 294-4, 2577

Typical mechanical properties

Tensile stress at yield, 50mm/min	8300	psi	ISO 527-1/-2
Tensile strain at yield, 50mm/min	9	%	ISO 527-1/-2
Nominal strain at break	40	%	ISO 527-1/-2
Flexural modulus	312000	psi	ISO 178
Flexural strength	11000	psi	ISO 178
Charpy notched impact strength, 23°C	3.81	ftlb/in²	ISO 179/1eA

Thermal properties

Melting temperature, 10°C/min	329	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	183	°F	ISO 75-1/-2
Coefficient of linear thermal expansion (CLTE), parallel	0.72	E-4/°F	ISO 11359-1/-2

Flammability

Burning Behav. at thickness h	HB	class	IEC 60695-11-10

Physical/Other properties

Humidity absorption, 2mm	0.22	%	Sim. to ISO 62
Density	0.0502	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

Characteristics

Processing	Injection Molding
Special characteristics	High impact or impact modified

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