

CZL-5000

- **Out line: CZL-5000 is a pitch based carbon fiber and poly tetra fluoro ethylene filled PPS compound that is excellent self lubricant performance: low wear, and low friction properties.**
- **Color: Natural (Black)**

Engineering Properties of CZL-5000

Properties	Test Method	Unit	CZL-5000 Pitch-CF, PTFE & Others Lubricant
General Information			
<ASTM>			
Physical			
Specific gravity	D-792	-	1.69
Water absorption, 23deg. /24Hrs. /in water	D-570	Wt.%	0.05
Mold shrinkage, MD /TD ^a	D-955	%	0.25/1.0
Mechanical			
Tensile strength	D-638	MPa	90
Tensile modulus	D-638	MPa	15000
Tensile elongation at break	D-638	%	0.6
Poisson's ratio	-	-	0.35
Flexural strength	D-790	MPa	120
Flexural modulus	D-790	MPa	14000
Flexural elongation at break	D-790	%	1.0
Izod impact strength notched / un notched	D-256	J/m	50/150
Compressive strength	D-695	MPa	120
Rockwell hardness, R/M	D-785	-	118/98
Coefficient of friction ^b , static /dynamic	-	-	0.20/0.20
Thermal			
Distortion temp. of under load, 1.82MPa	D-648	°C	265
Coefficient of thermal expansion ^c , -30 to 90°C	D-696	m/mK	1.2x10 ⁻⁵
UL Flammability ^d , t~0.8mm	UL-94	-	V-0
Electrical			
Dielectric strength, t=1.6mm	D-149	kv/mm	-
Dielectric constant, 1MHz	D-150	-	-
Dissipation factor, 1MHz	D-150	-	-
Comparative tracking index (CTI)	D-3638	Volt	-
Arc resistance	D-495	sec.	-
Volume resistibility	D-257	Ohm.cm	10 ⁸⁻¹⁰
Process Conditions			
Cylinder temperature	-	°C	290-320
Mold temperature	-	°C	120-150

a: MD; Mold direction, TD; Transverse direction, b: P=150KPa, V=0.3m/s, PPS vs. carbon steel,
c: Average value of MD & TD, d: UL file No. E53829



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