

CZL-2000

- **Product Summary:** CZL-2000 is a pitch based carbon fiber and polytetrafluoroethylene filled PPS compound with excellent lubricant performance with low friction and wear properties.

- **Color:** Black

Engineering Properties of CZL-2000

Properties	Test Method	Unit	CZL-2000
General Information			Pitch-CF30%/PTFE Lubricant
Physical			
Density	ISO 1183	g/cm ³	1.48
Water absorption, 23°C /24Hrs.	ISO 62	%	0.16
Mold shrinkage ^a	ISO 294-4	%	0.3/0.9
Mechanical			
Tensile strength	ISO 527-1,2	MPa	110
Tensile modulus	ISO 527-1,2	GPa	8.5
Tensile strain at break	ISO 527-1,2	%	1.8
Flexural strength	ISO 178	MPa	160
Flexural modulus	ISO 178	GPa	8.0
Flexural strain at break	ISO 178	%	2.1
Charpy impact strength, notched	ISO 179/1eA	kJ/m ²	3
Charpy impact strength, unnotched	ISO 179/1eU	kJ/m ²	15
Co-eff. of friction ^b , static/dynamic	-	-	0.21/0.21
Thermal			
Heat deflection temperature, 1.80MPa	ISO 75-1,2	°C	260
Co-eff. of linear thermal expansion ^a , -50~50 °C	ISO 11359-2	x 10 ⁻⁵ /K	2.0/4.0
Co-eff. of linear thermal expansion ^a , 100~200 °C	ISO 11359-2	x 10 ⁻⁵ /K	2.0/10.0
Flammability ^c /thickness (mm)	UL-94	-	-
Electrical			
Dielectric strength, t=1.0mm	IEC 60243-1	kV/mm	-
Dielectric constant, 1MHz	IEC 60250	-	-
Dissipation factor, 1MHz	IEC 60250	-	-
Comparative Tracking Index (CTI)	IEC 60112	V	-
Volume resistivity	IEC 60093	Ω·cm	10 ⁴
Molding Condition			
Cylinder temperature	-	°C	290-320
Mold temperature	-	°C	130-150

a: Flow direction / Transverse direction

b: P=150kPa, V=0.3m/s, PPS vs. carbon steel

c: UL file No. E53829