



June, 2024

CZL-2000-R2

- Product Summary: CZL-2000-R2 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

Properties	Test Method	Unit	Typical value
General Information			Pitch-CF30%/PTFE Lubricant
Physical			
Density Water absorption, 23°C /24Hrs. Mold shrinkage ^a	ISO 1183-1 ISO 62 ISO 294-4	g/cm³ % %	1.47 0.23 0.3/0.9
Mechanical			
Tensile strength Tensile modulus Tensile strain at break Flexural strength Flexural modulus Flexural strain at break Charpy impact strength, notched unnotched Co-eff. of friction b, static/dynamic	ISO 527-1,2 ISO 527-1,2 ISO 527-1,2 ISO 178 ISO 178 ISO 178 ISO 179/1eA ISO 179/1eU	MPa GPa % MPa GPa % kJ/m² kJ/m²	115 8.0 1.8 180 8.5 2.3 3 20 - /0.25
Thermal			
Heat deflection temperature, 1.80MPa Co-eff. of linear thermal expansion a, -50~50 °C Co-eff. of linear thermal expansion a, 100~200 °C Flammability c/thickness (mm)	ISO 75-1,2 ISO 11359-2 ISO 11359-2 UL-94	°C x 10 ⁻⁵ /K x 10 ⁻⁵ /K -	2655 2.0/4.0 2.0/10.0 -
Electrical			
Dielectric strength, t=1.0mm Dielectric constant, 1MHz Dissipation factor, 1MHz Comparative Tracking Index (CTI) Volume resistivity	IEC 60243-1 IEC 62631-2-1 IEC 62631-2-1 IEC 60112 IEC 62631-3-1	kV/mm - - V Ω·cm	- - - - 10 ⁸
Molding Condition			
Cylinder temperature Mold temperature	- -	°C	290-320 130-150

a: Flow direction / Transverse direction

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

c: UL file No. E53829