

CZL-4033-R2

- **Product Summary:** CZL-4033-R2 is a PAN based carbon fiber and polytetrafluoroethylene filled PPS compound with excellent mechanical properties, low friction and wear properties and electric conductivity.

- **Color:** Black

Engineering Properties			
Properties	Test Method	Unit	Typical value
General Information			PAN-CF30%/PTFE Lubricant Conductive
Physical			
Density	ISO 1183-1	g/cm ³	1.55
Water absorption, 23°C/24Hrs.	ISO 62	%	0.03
Mold shrinkage ^a	ISO 294-4	%	0.1/0.4
Mechanical			
Tensile strength	ISO 527-1,2	MPa	175
Tensile modulus	ISO 527-1,2	GPa	27.5
Tensile strain at break	ISO 527-1,2	%	0.7
Flexural strength	ISO 178	MPa	270
Flexural modulus	ISO 178	GPa	27.5
Flexural strain at flexural strength	ISO 178	%	1.1
Charpy impact strength, notched	ISO 179/1eA	kJ/m ²	5
unnotched	ISO 179/1eU	kJ/m ²	27
Co-eff. of friction ^b	-	-	0.25
Thermal			
Heat deflection temperature, 1.80MPa	ISO 75-1,2	°C	270
Co-eff. of linear thermal expansion ^a , -50~50 °C	ISO 11359-2	x 10 ⁻⁵ /K	0.5/4.5
Co-eff. of linear thermal expansion ^a , 100~200 °C	ISO 11359-2	x 10 ⁻⁵ /K	0.5/10.0
Flammability ^c /thickness (mm)	UL-94	-	V-0/1.5
Electrical			
Electric strength, t=1.0mm	IEC 60243-1	kV/mm	-
Relative permittivity, 1MHz	IEC 62631-2-1	-	-
Dielectric dissipation factor, 1MHz	IEC 62631-2-1	-	-
Comparative Tracking Index (CTI)	IEC 60112	V	-
Volume resistivity	IEC 62631-3-1	Ω·cm	10 ⁰
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