September, 2023

## CZ-1130-U

■ Product Summary: CZ-1130-U is a 30% PAN based carbon fiber reinforced PPS compound with excellent mechanical properties and low friction and wear properties.

■ Color: Black

**Engineering Properties** 

Properties	Test Method	Unit	Typical value
General Information			PAN-CF30% Low wear Conductive
Physical			
Density Water absorption, 23°C /24hrs. Mold shrinkage <sup>a</sup> Mechanical	ISO 1183-1 ISO 62 ISO 294-4	g/cm³ % %	1.46 0.02 0.1/0.4
Tensile strength Tensile modulus Tensile strain at break Flexural strength Flexural modulus Flexural strain at flexural strength 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	215 30.0 0.8 325 26.0 1.3 5 32 0.25/0.25
Thermal			
Temperature of deflection under load, 1.80MPa Co-eff. of linear thermal expansion <sup>a</sup> , -50~50 °C Co-eff. of linear thermal expansion <sup>a</sup> , 100~200 °C Flammability <sup>c</sup> /thickness (mm)	ISO 75-1,2 ISO 11359-2 ISO 11359-2 UL-94	°C x 10 <sup>-5</sup> /K x 10 <sup>-5</sup> /K -	275 0.5/4.5 0.5/10.0 V-0/0.69
Electrical			
Electric strength, t=1.0mm Relative permittivity, 1MHz Dielectric 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 <sup>0</sup>
Molding Condition			
Cylinder temperature  Mold temperature	<del>-</del> -	°C	300-340 130-150

a: Flow direction/Transverse direction

## **DIC** Corporation

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

c: UL file No. E53829