Color & Comfort

DIC.PPS
Polyphenylene Sulfide

May, 2024

CZ-1030

■ **Product Summary: CZ-1030 is a 30% pitch based carbon fiber reinforced PPS compound with low friction and wear properties.**

■ **Color: Black**

Engineering Properties

Properties	Test Method	Unit	Typical value
General Information			Pitch-CF30% Low wear
Physical			
Density	ISO 1183-1	g/cm³	1.41
Water absorption, 23˚C /24hrs.	ISO 62	%	0.17
Mold shrinkage [a]	ISO 294-4	%	0.5/0.9
Mechanical			
Tensile strength	ISO 527-1,2	MPa	105
Tensile modulus	ISO 527-1,2	GPa	8.5
Tensile strain at break	ISO 527-1,2	%	1.4
Flexural strength	ISO 178	MPa	160
Flexural modulus	ISO 178	GPa	8.0
Flexural strain at flexural strength	ISO 178	%	1.9
Charpy impact strength,			
notched	ISO 179/1eA	kJ/m²	3
unnotched	ISO 179/1eU	kJ/m²	13
Co-eff. of friction [b], static/dynamic	-	-	0.20/0.20
Thermal			
Temperature of deflection under load, 1.80MPa	ISO 75-1,2	˚C	255
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	2.0/11.0
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	10^4
Molding Condition			
Cylinder temperature	-	˚C	300-340
Mold temperature	-	˚C	130-150

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

DIC Corporation