Color & Comfort

DIC.PPS
Polyphenylene Sulfide

September, 2023

FZ-2140-B2-U, FZ-2140-B2 BLACK-U

■ **Product Summary: FZ-2140-B2-U is a 40% glass fiber reinforced linear PPS compound with excellent mechanical and high flow properties.**

■ **Color: Black and Natural**

Engineering Properties

Properties	Test Method	Unit	Typical value
General Information			GF40% High flow
Physical			
Density	ISO 1183-1	g/cm³	1.67
Water absorption, 23˚C /24hrs.	ISO 62	%	0.01
Mold shrinkage [a]	ISO 294-4	%	0.3/0.7
Mechanical			
Tensile strength	ISO 527-1,2	MPa	185
Tensile modulus	ISO 527-1,2	GPa	16.0
Tensile strain at break	ISO 527-1,2	%	1.5
Flexural strength	ISO 178	MPa	270
Flexural modulus	ISO 178	GPa	15.0
Flexural strain at flexural strength	ISO 178	%	1.9
Charpy impact strength,			
notched	ISO 179/1eA	kJ/m²	9
unnotched	ISO 179/1eU	kJ/m²	46
Co-eff. of friction [b], static/dynamic	-	-	0.35/0.35
Thermal			
Temperature of deflection under load, 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	1.5/4.0
Co-eff. of linear thermal expansion [a], 100~200 ˚C	ISO 11359-2	x 10^{-5}/K	1.5/10.5
Flammability [c]/thickness (mm)	UL-94	-	V-0/0.75
Electrical			
Electric strength, t=1.0mm	IEC 60243-1	kV/mm	26
Relative permittivity, 1MHz	IEC 62631-2-1	-	4
Dielectric dissipation factor, 1MHz	IEC 62631-2-1	-	0.003
Comparative Tracking Index (CTI)	IEC 60112	V	175
Volume resistivity	IEC 62631-3-1	Ω·cm	10^{16}
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
c: UL file No. E53829

DIC Corporation