

FZ-2140-T3 BLACK-U, FZ-2140-T3 BLACK-U1

■ **Product Summary:** FZ-2140-T3-U/-U1 is a 40% glass fiber reinforced linear PPS compound with excellent mechanical properties and outstanding stability against coolants and hot water. Also its superior welding property gives flexibility to design of complexly structured components.

■ **Color:** Black

Engineering Properties

Properties	Test Method	Unit	Typical value
General Information			GF40% High strength, Hydrolytic stability
Physical			
Density	ISO 1183-1	g/cm ³	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	200
Tensile modulus	ISO 527-1,2	GPa	16.0
Tensile strain at break	ISO 527-1,2	%	2.0
Flexural strength	ISO 178	MPa	300
Flexural modulus	ISO 178	GPa	15.0
Flexural strain at flexural strength	ISO 178	%	2.2
Charpy impact strength, notched	ISO 179/1eA	kJ/m ²	12
unnotched	ISO 179/1eU	kJ/m ²	58
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