

Z-230 BLACK-U, Z-230 BLACK-U1

- **Product Summary:** Z-230 BLACK-U/-U1 is a 30% glass fiber reinforced super tough PPS compound with excellent impact, thermal shock, and hot water resistance.
- **Color:** Black

Engineering Properties

Properties	Test Method	Unit	Typical value
General Information			GF30% Super tough
Physical			
Density	ISO 1183-1	g/cm ³	1.53
Water absorption, 23°C /24hrs.	ISO 62	%	0.02
Mold shrinkage ^a	ISO 294-4	%	0.3/0.8
Mechanical			
Tensile strength	ISO 527-1,2	MPa	150
Tensile modulus	ISO 527-1,2	GPa	11.0
Tensile strain at break	ISO 527-1,2	%	2.2
Flexural strength	ISO 178	MPa	240
Flexural modulus	ISO 178	GPa	10.0
Flexural strain at flexural strength	ISO 178	%	2.6
Charpy impact strength, notched	ISO 179/1eA	kJ/m ²	13
unnotched	ISO 179/1eU	kJ/m ²	61
Co-eff. of friction ^b , static /dynamic	-	-	-
Thermal			
Temperature of deflection under load, 1.80MPa	ISO 75-1,2	°C	260
Co-eff. of linear thermal expansion ^a , -50~50 °C	ISO 11359-2	x 10 ⁻⁵ /K	1.5/5.0
Co-eff. of linear thermal expansion ^a , 100~200 °C	ISO 11359-2	x 10 ⁻⁵ /K	1.5/13.5
Flammability ^c / thickness(mm)	UL-94	-	V-0/1.5
Electrical			
Electric strength, t=1.0mm	IEC 60243-1	kV/mm	27
Relative permittivity, 1MHz	IEC 62631-2-1	-	4
Dielectric dissipation factor, 1MHz	IEC 62631-2-1	-	0.005
Comparative Tracking Index (CTI)	IEC 60112	V	150
Volume resistivity	IEC 62631-3-1	Ω·cm	10 ¹⁶
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