

TZ-2010-A1

■ **Product Summary:** TZ-2010-A1 is a glass fiber and mineral filled, thermal conductive / electric insulating PPS compound with 1W/m·K class thermal conductivity and well balanced mechanical properties.

■ **Color:** Black

Engineering Properties of TZ-2010-A1

Properties	Test Method	Unit	TZ-2010-A1 GF/Filler High thermal conductivity, Insulating
General Information			
Physical			
Density	ISO 1183	g/cm ³	2.11
Water absorption, 23°C /24hrs.	ISO 62	%	0.02
Mold shrinkage ^a	ISO 294-4	%	0.4/0.5
Mechanical			
Tensile strength	ISO 527-1,2	MPa	135
Tensile modulus	ISO 527-1,2	GPa	17.5
Tensile strain at break	ISO 527-1,2	%	1.1
Flexural strength	ISO 178	MPa	210
Flexural modulus	ISO 178	GPa	19.5
Flexural strain at break	ISO 178	%	1.2
Charpy impact strength, notched	ISO 179/1eA	kJ/m ²	5
unnotched	ISO 179/1eU	kJ/m ²	23
Co-eff. of friction ^b , static/dynamic	-	-	-
Thermal			
Heat deflection temperature, 1.80MPa	ISO 75-1,2	°C	275
Co-eff. of linear thermal expansion ^a , -50~50 °C	ISO 11359-2	x 10 ⁻⁵ /K	1.5/2.5
Co-eff. of linear thermal expansion ^a , 100~200 °C	ISO 11359-2	x 10 ⁻⁵ /K	1.5/7.0
Thermal conductivity	DIC	W/m·K	1
Electrical			
Dielectric strength, t=1.0mm	IEC 60243-1	kV/mm	23
Dielectric constant, 1MHz	IEC 60250	-	5
Dissipation factor, 1MHz	IEC 60250	-	0.006
Comparative Tracking Index (CTI)	IEC 60112	V	200
Volume resistivity	IEC 60093	Ω·cm	10 ¹⁴
Molding Condition			
Cylinder temperature	-	°C	310-330
Mold temperature	-	°C	140-160

a: Flow direction / Transverse direction

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