

# FZ-1140

- **Out line: FZ-1140 is a 40% glass fiber reinforced polyphenylene sulfide compound that is well balanced the excellent engineering properties and process ability.**
- **Color: Black and Natural (Brown)**

**Engineering Properties of FZ-1140**

Properties	Test Method	Unit	FZ-1140
General Information			GF40% GP
<ASTM>			
<b>Physical</b>			
Specific gravity	D-792	-	1.66
Water absorption, 23deg. /24Hrs. /in water	D-570	Wt. %	0.02
Mold shrinkage, MD /TD <sup>a</sup>	D-955	%	0.25/1.1
<b>Mechanical</b>			
Tensile strength	D-638	MPa	180
Tensile modulus	D-638	MPa	15000
Tensile elongation at break	D-638	%	1.7
Poisson's ratio	-	-	0.36
Flexural strength	D-790	MPa	265
Flexural modulus	D-790	MPa	13500
Flexural elongation at break	D-790	%	2.2
Izod impact strength notched / un notched	D-256	J/m	100/500
Compressive strength	D-695	MPa	200
Rockwell hardness, R/M	D-785	-	121/100
Coefficient of friction <sup>b</sup> , static /dynamic	-	-	0.35/0.35
<b>Thermal</b>			
Distortion temp. of under load, 1.82MPa	D-648	°C	265
Coefficient of thermal expansion <sup>c</sup> , -30 to 90°C	D-696	m/mK	2.2x10 <sup>-5</sup>
UL Flammability <sup>d</sup>	UL-94	-	V-0 <sup>e</sup>
<b>Electrical</b>			
Dielectric strength, t=1.6mm	D-149	kv/mm	16
Dielectric constant, 1MHz	D-150	-	4
Dissipation factor, 1MHz	D-150	-	0.002
Comparative tracking index (CTI)	D-3638	Volt	170
Arc resistance	D-495	sec.	125
Volume resistibility	D-257	Ohm.cm	10 <sup>16</sup>
<b>Process Conditions</b>			
Cylinder temperature	-	°C	300-340
Mold temperature	-	°C	120-150

a: MD; Mold direction, TD; Transverse direction, b: P=150KPa, V=0.3m/s, PPS vs. carbon steel,  
c: Average value of MD & TD, d: UL file No. E53829, e: t~0.4mm



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