

## FZ-1140-D5

- **Product Summary:** FZ-1140-D5 is a 40% glass fiber reinforced branched PPS compound with reduced flash and improved mechanical properties for use in connectors.
- **Color:** Black and Natural (Brown)

**Engineering Properties of FZ-1140-D5**

Properties	Test Method	Unit	FZ-1140-D5
General Information			GF40% Low flash
<b>Physical</b>			
Density	ISO 1183	g/cm <sup>3</sup>	1.67
Water absorption, 23°C /24hrs.	ISO 62	%	0.02
Mold shrinkage <sup>a</sup>	ISO 294-4	%	0.3/0.7
<b>Mechanical</b>			
Tensile strength	ISO 527-1,2	MPa	200
Tensile modulus	ISO 527-1,2	GPa	17.0
Tensile strain at break	ISO 527-1,2	%	1.6
Flexural strength	ISO 178	MPa	300
Flexural modulus	ISO 178	GPa	16.5
Flexural strain at break	ISO 178	%	1.9
Charpy impact strength, notched	ISO 179/1eA	kJ/m <sup>2</sup>	10
Charpy impact strength, unnotched	ISO 179/1eU	kJ/m <sup>2</sup>	50
Co-eff. of friction <sup>b</sup> , static/dynamic	-	-	0.35/0.35
<b>Thermal</b>			
Heat deflection temperature, 1.80MPa	ISO 75-1,2	°C	270
Co-eff. of linear thermal expansion <sup>a</sup> , -50~50 °C	ISO 11359-2	x 10 <sup>-5</sup> /K	1.5/4.0
Co-eff. of linear thermal expansion <sup>a</sup> , 100~200 °C	ISO 11359-2	x 10 <sup>-5</sup> /K	1.5/10.5
Flammability <sup>c</sup> /thickness (mm)	UL-94	-	V-0/0.36
<b>Electrical</b>			
Dielectric strength, t=1.0mm	IEC 60243-1	kV/mm	25
Dielectric constant, 1MHz	IEC 60250	-	4
Dissipation factor, 1MHz	IEC 60250	-	0.003
Comparative Tracking Index (CTI)	IEC 60112	V	175
Volume resistivity	IEC 60093	Ω·cm	10 <sup>16</sup>
<b>Molding Condition</b>			
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