

FZ-1140-R5

- **Outline:** FZ-1140-R5 is a 40% GF reinforced PPS compound which provides excellent hydrolytic stability for use of applications exposed to hot water or engine coolant.
- **Color:** Black

Properties of FZ-1140-R5

Properties	Test Method	Unit	FZ-1140-R5
General Information			GF40% Hydrolysis resistant
Physical			
Specific gravity	ISO 1183A	-	1.68
Water absorption, 23deg. /24Hrs. /in water	ISO 62	Wt.%	0.02
Mold shrinkage, MD /TD ^a	ISO 294-4	%	0.4 / 0.7
Mechanical			
Tensile strength	ISO 527	MPa	180
Tensile modulus	ISO 527	GPa	15.0
Tensile elongation at break	ISO 527	%	1.8
Poisson's ratio	-	-	-
Flexural strength	ISO 178	MPa	265
Flexural modulus	ISO 178	GPa	14.5
Flexural elongation at break	ISO 178	%	2.0
Charpy impact strength notched / Un notched (23°C)	ISO 179/1eU	kJ/m ²	12 / 45
Compressive strength	ISO 604	MPa	-
Rockwell hardness, R/M	ISO 2039-2	-	121/100
Coefficient of friction ^b , static /dynamic	-	-	-
Thermal			
Distortion temp. of under load, 1.82 / 0.45 MPa	ISO 75-1, -2A	°C	265
Coefficient of thermal expansion ^c , -30 to 90°C	ISO 11359-1, -2	m/mK	2.3x10 ⁻⁵
UL Flammability, t~0.8mm	UL-94	-	V-0
Electrical			
Dielectric strength, t=1.6mm	IEC 60243-1	kv/mm	16
Dielectric constant, 1MHz	IEC 60250	-	4
Dissipation factor, 1MHz	IEC 60250	-	0.002
Comparative tracking index (CTI)	IEC 112	Volt	170
Arc resistance	ASTM D-495	sec.	125
Volume resistivity	IEC 60093	Ohm.cm	10 ¹⁶
Process Conditions			
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,



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