

# DIC.PPS FZ-1140-R5

Polyphenylene Sulfide

DIC Corporation

Message:

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 and Natural (Brown)

General Information			
UL YellowCard	E53829-243754	E53829-243755	E53829-243756
Filler / Reinforcement	Glass Fiber,40% Filler by Weight		
Features	Hydrolytically Stable		
UL File Number	E53829		
Appearance	Black Natural Color		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.66	g/cm <sup>3</sup>	ASTM D792
Molding Shrinkage			ASTM D955
Flow	0.25	%	
Across Flow	1.1	%	
Water Absorption (23°C, 24 hr)	0.020	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ASTM D785
M-Scale	100		
R-Scale	121		
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	15000	MPa	ASTM D638
Tensile Strength	180	MPa	ASTM D638
Tensile Elongation (Break)	1.8	%	ASTM D638
Flexural Modulus	13500	MPa	ASTM D790
Flexural Strength	260	MPa	ASTM D790
Compressive Strength	200	MPa	ASTM D695
Poisson's Ratio	0.36		
Coefficient of Friction			ASTM D1894
vs. Steel - Dynamic	0.35		
vs. Steel - Static	0.35		
Flexural Elongation at Break	2.5	%	ASTM D790

Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	100	J/m	ASTM D256
Unnotched Izod Impact	600	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	265	°C	ASTM D648
CLTE			ASTM D696
Flow : -30 to 90°C	2.2E-5	cm/cm/°C	
Transverse : -30 to 90°C	2.2E-5	cm/cm/°C	
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	1.0E+16	ohms·cm	ASTM D257
Dielectric Strength (1.60 mm)	16	kV/mm	ASTM D149
Dielectric Constant (1 MHz)	4.00		ASTM D150
Dissipation Factor (1 MHz)	2.0E-3		ASTM D150
Arc Resistance	125	sec	ASTM D495
Comparative Tracking Index	170	V	ASTM D3638
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.400 mm)	V-0		UL 94
Injection	Nominal Value	Unit	
Rear Temperature	300 to 340	°C	
Middle Temperature	300 to 340	°C	
Front Temperature	300 to 340	°C	
Mold Temperature	120 to 150	°C	

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