

DIC.PPS FZ-4020-A1

Polyphenylene Sulfide

DIC Corporation

Message:

Outline: FZ-4020-A1 is a 40% GF "Low Halogen" type PPS compound with superior heat resistance property for lead free soldering process.
Color: Black and Natural

General Information			
UL YellowCard	E53829-100094908		
Filler / Reinforcement	Glass Fiber,40% Filler by Weight		
Features	High Heat Resistance		
	Low (to None) Lead Content		
	Low Halogen Content		
UL File Number	E53829		
Appearance	Black		
	Natural Color		
Forms	Pellets		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.63	g/cm ³	ASTM D792
Molding Shrinkage			ASTM D955
Flow	0.28	%	
Across Flow	1.2	%	
Water Absorption (23°C, 24 hr)	0.080	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			ASTM D785
M-Scale	100		
R-Scale	122		
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	15000	MPa	ASTM D638
Tensile Strength	190	MPa	ASTM D638
Tensile Elongation (Break)	1.8	%	ASTM D638
Flexural Modulus	14000	MPa	ASTM D790
Flexural Strength	270	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	2.4	%	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	100	J/m	ASTM D256
Unnotched Izod Impact	650	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed)	270	°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)	4.0E-3		ASTM D150
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.800 mm)	V-0		UL 94
Injection	Nominal Value	Unit	
Rear Temperature	290 to 320	°C	
Middle Temperature	290 to 320	°C	
Front Temperature	290 to 320	°C	
Mold Temperature	120 to 150	°C	

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