



June, 2024

## FZ-4020-A1, FZ-4020-A1 BLACK

■ Product Summary: FZ-4020-A1 is a 40% glass fiber reinforced low halogen type of PPS compound with superior solder heat resistance.

■ Color: Black and Natural

**Engineering Properties** 

Properties	Test Method	Unit	Typical value
General Information			GF40% CI;<900ppm High heat resistance
Physical			
Density Water absorption, 23°C /24hrs. Mold shrinkage <sup>a</sup>	ISO 1183-1 ISO 62 ISO 294-4	g/cm³ % %	1.62 0.08 0.3/0.7
Mechanical			
Tensile strength Tensile modulus Tensile strain at break Flexural strength Flexural modulus Flexural strain at break Charpy impact strength, notched unnotched	ISO 527-1,2 ISO 527-1,2 ISO 527-1,2 ISO 178 ISO 178 ISO 178 ISO 179/1eA ISO 179/1eU	MPa GPa % MPa GPa % kJ/m² kJ/m²	195 15.0 1.7 290 14.5 2.0
Thermal			
Heat deflection temperature, 1.80MPa Co-eff. of linear thermal expansion <sup>a</sup> , -50~50 °C Co-eff. of linear thermal expansion <sup>a</sup> , 100~200 °C Flammability <sup>c</sup> /thickness (mm)	ISO 75-1,2 ISO 11359-2 ISO 11359-2 UL94	°C x 10 <sup>-5</sup> /K x 10 <sup>-5</sup> /K -	270 1.5/4.5 1.5/12.0 -
Electrical			
Dielectric strength, t=1.0mm Dielectric constant, 1MHz Dissipation factor, 1MHz Comparative Tracking Index (CTI) Volume resistivity	IEC 60243-1 IEC 60243-2-1 IEC 60243-2-1 IEC 60112 IEC 60243-3-1	kV/mm - - V Ω·cm	25 4 0.004 200 10 <sup>16</sup>
Molding Condition			
Cylinder temperature Mold temperature	- -	°C	320-350 130-150

a: Flow direction / Transverse direction

## **DIC** Corporation

Please refer to Safety Data Sheet for safety precautions prior to use. The information contained in this data sheet is based on tests or research DIC Corporation ('DIC') believes to be reliable, but no warranty is given by DIC concerning the accuracy or completeness thereof. The supply of the information does not release the recipient from the obligation to test the products as to their suitability for the intended applications and processes. DIC has no liability for any consequence of the application, processing or use of the information or the products. Information concerning the application of the products is not and should not be construed as a warranty as to non-infringement of intellectual property for a particular application.

b: UL file No. E53829