



June, 2024

## **FZ-820-DE**

- Product Summary: FZ-820-DE is a glass fiber reinforced impact modified PPS compound which is specially formulated to have excellent adhesion to epoxy adhesives, thermal shock resistance and good flow in thin walls.
- Color: Black

**Engineering Properties** 

Properties	Test Method	Unit	Typical value
General Information	iest Method	Unit	Typical value  GF20%  Good adhesion  with epoxy resin
Physical			
Density Water absorption, 23°C /24hrs. Mold shrinkage <sup>a</sup>	ISO 1183-1 ISO 62 ISO 294-4	g/cm³ % %	1.42 0.07 0.5/0.8
Mechanical			
Tensile strength Tensile modulus Tensile strain at break Flexural strength Flexural modulus Flexural strain at break Charpy impact strength, notched unnotched Co-eff. of friction b, static/dynamic	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	130 8.5 2.2 200 8.0 2.7 9 55 0.35/0.35
Thermal			
Heat deflection temperature, 1.80MPa Co-eff. of linear thermal expansion a, -50~50 °C Co-eff. of linear thermal expansion a, 100~200 °C Flammability c/thickness (mm)	ISO 75-1,2 ISO 11359-2 ISO 11359-2 UL-94	°C x 10 <sup>-5</sup> /K x 10 <sup>-5</sup> /K -	240 2.0/6.0 2.0/13.0 -
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	30 4 0.007 175 10 <sup>16</sup>
Molding Condition			
Cylinder temperature Mold temperature	-	°C	290-320 130-150

a: Flow direction / Transverse direction

## **DIC** Corporation

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b: P=150kPa, V=0.3m/s, PPS vs. carbon steel

c: UL file No. E53829