

February, 2024

CZ-2065-H1

■ Product Summary: CZ-2065-H1 is a carbon fiber reinforced PPS compound with the highest thermal / electric conductivity within DIC.PPS portfolio.

■ Color: Black

Engineering Properties

Properties	Test Method	Unit	Typical value
General Information			CF/Filler Thermal / electrical conductivity
Physical			
Density Water absorption, 23°C /24hrs. Mold shrinkage ^a Mechanical	ISO 1183-1 ISO 62 ISO 294-4	g/cm³ % %	1.81 0.01 0.1/0.3
	100 507 4 0	MD-	75
Tensile strength Tensile modulus Tensile strain at break Flexural strength Flexural modulus Flexural strain at flexural strength	ISO 527-1,2 ISO 527-1,2 ISO 527-1,2 ISO 178 ISO 178 ISO 178	MPa GPa % MPa GPa %	75 43 0.1 125 41 0.3
Charpy impact strength, notched unnotched Co-eff. of friction ^b , static/dynamic	ISO 179/1eA ISO 179/1eU -	kJ/m² kJ/m² -	1 3 -/-
Thermal			
Temperature of deflection under load, 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) Thermal conductivity	ISO 75-1,2 ISO 11359-2 ISO 11359-2 UL-94 HotDisk method	°C x 10 ⁻⁵ /K x 10 ⁻⁵ /K - W/m•K	270 0.1/2.0 0.5/4.0 - 9.5
Electrical			
Electric strength, t=1.0mm Relative permittivity, 1MHz Dielectric dissipation factor, 1MHz Comparative Tracking Index (CTI) Volume resistivity	IEC 60243-1 IEC 62631-2-1 IEC 62631-2-1 IEC 60112 Four-point probe Method	kV/mm - - V Ω·cm	- - - - 10 ⁻¹
Molding Condition			
Cylinder temperature Mold temperature	-	°C	300-340 130-180

a: Flow direction/Transverse direction

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

c: Own data