

September, 2023

Primef® 7002/0000-U, 7002/0005-U, 7002/9000-U

■ Product Summary: Primef® 7002 is a glass fiber and mineral filled linear PPS compound for general purpose with excellent mechanical properties and processability.

■ Color: Black (7002/9000-U)

Natural (7002/0000-U and 7002/0005-U: lubricated)

Engineering Properties

Properties	Test Method	Unit	Typical value
General Information			GF/Filler Standard
Physical			
Density	ISO 1183-1	g/cm³	1.96
Water absorption, 23°C /24hrs.	ISO 62	%	0.01
Mold shrinkage ^a	ISO 294-4	%	0.3/0.6
Mechanical			
Tensile strength	ISO 527-1,2	MPa	150
Tensile modulus	ISO 527-1,2	GPa	21.0
Tensile strain at break	ISO 527-1,2	%	1.1
Flexural strength	ISO 178	MPa	235
Flexural modulus	ISO 178	GPa	21.0
Flexural strain at flexural strength	ISO 178	%	1.3
Charpy impact strength,			
notched	ISO 179/1eA	kJ/m²	5.0
unnotched	ISO 179/1eU	kJ/m²	22
Co-eff. of friction b, static/dynamic	-	-	0.35/0.35
Thermal			
Temperature of deflection under load, 1.80MPa	ISO 75-1,2	°C	275
Co-eff. of linear thermal expansion a, -50~50 °C	ISO 11359-2	x 10 ⁻⁵ /K	1.5/2.5
Co-eff. of linear thermal expansion a, 100~200 °C	ISO 11359-2	x 10 ⁻⁵ /K	1.5/7.0
Flammability ^c /thickness (mm)	UL-94	-	V-0/0.75
Electrical			
Electric strength, t=1.0mm	IEC 60243-1	kV/mm	22
Relative permittivity, 1MHz	IEC 62631-2-1	-	5
Dielectric dissipation factor, 1MHz	IEC 62631-2-1	-	0.002
Comparative Tracking Index (CTI)	IEC 60112	V	200
Volume resistivity	IEC 62631-3-1	$\Omega \cdot cm$	10 ¹⁶
Molding Condition			
Cylinder temperature	-	°C	300-340
Mold temperature	-	°C	130-150

a: Flow direction/Transverse direction

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

c: UL file No. E53829