

Primef[®] PPS 4010

- Outline: Primef[®] PPS 4010 is a 40% glass fiber reinforced PPS that offers enhanced mechanical properties. In general, PPS offers an excellent balance of properties including high temperature resistance, chemical resistance, dimensional stability and electrical characteristics. Because of its inherent flame retardancy, PPS is a good choice for high-temperature electrical and electronic applications.
- Color: Black (4010/9000) and Natural (4010/0000)

Engineering Properties of Primef[®] PPS 4010

Properties	Test Method	Unit	Primef [®] PPS 4010
General Information	<ISO>		GF40%
Physical			
Specific gravity	ISO 1183	-	1.66
Mold shrinkage - Flow ^a		%	0.10 to 0.3%
Mechanical			
Tensile strength	ISO 527	MPa	180
Tensile modulus	ISO 527	MPa	14000
Tensile elongation at break	ISO 527	%	1,7
Poisson's ratio	-	-	—
Flexural strength	ISO 178	MPa	250
Flexural modulus	ISO 178	MPa	14000
Izod impact strength notched / un notched	ASTM D256	J/m	85 / 450
Compressive strength	-	-	—
Rockwell hardness, R/M	-	-	- / -
Coefficient of friction ^b , static /dynamic	-	-	—
Thermal			
HDT, 1.8MPa	ISO 75-2/A	°C	> 260°C
Coefficient of thermal expansion ^c , -30 to 100°C	D-696	m/mK	—
Thermal conductivity	ISO 8302	W/m/K	0,30
UL Flammability, 0,8 mm	UL-94	-	V-0
Electrical			
Electric strength	IEC60243-1	kV/mm	17
Dielectric constant, 1 kHz / 1MHz	IEC60250	-	4,00 / 3,90
Dissipation factor, 1 kHz / 1MHz	IEC60250	-	0,0020 / 0,0020
Comparative tracking index (CTI)	IEC60112	Volt	150
Arc resistance	D-495	sec.	—
Volume resistibility	IEC60093	Ohm.cm	1,0E+16
Process Conditions			
Cylinder temperature	-	°C	290-330
Mold temperature	-	°C	130-150

a: Pressure 750 bar, specimen 40x20xw mm, w between 2 and 4 mm,

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

c: Average value of MD & TD, d: UL file No.



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