

■ Polyphenylenesulfide PPS

Property	ASTM Test Method	Standard
Specific Gravity	D792	1.35
Tensile Strength [MPa]	D638	79
Tensile Elongation [%]	D638	23
Young's Modulus [10^3 MPa]	D638	—
Compressive Strength at 5% strain [MPa]	D695	—
Flexural Strength [MPa]	D790	128
Izod Notched Impact Strength (1/2in×1/2in notched, 23°C) [J/m]	D256	15
Rockwell Hardness	D785	—
Thermal Conductivity [W/(m·K)]	C177	0.20
Specific Heat [J/(kg·K)]	—	—
Coefficient of Linear Expansion [$10^{-5}/^{\circ}\text{C}$]	D696	2.4~2.9
Continuous Use Temperature [°C]	—	220
Deflection Temperature [°C]	0.451MPa	—
	1.813MPa	112
Volume Resistivity (23°C 50% RH) [$\Omega\cdot\text{m}$]	D257	10^{16}
Dielectric Strength [kV/mm]	shorttime 3.2mm thickness step	15
	3.2mm thickness	—
Dielectric Constant	60Hz	—
	10^3 Hz	4.6
	10^6 Hz	4.3
Dissipation Factor	60Hz	—
	10^3 Hz	0.017
	10^6 Hz	0.016
Arc resistance [sec]	D495	182
Water Absorption (24 hours 3.2mm Thickness) [%]	D570	0.02
Flammability or Rate of Burning	D635/UL94	V-0
sunlight resistances (color change)	—	resist
Weak acid resistances	D543	resist
Strong acid resistances	D543	resist some chemical
Weak alkali resistances	D543	resist
Strong alkali resistances	D543	resist
Organic solvent resistances	D543	resist
Transparency	—	opaque
Sand slurry Wear (SS400 =100)	(Original)	—
Thrust Wear (by S45C P=1,960kPa V=0.25m/sec) [$\times 10^{-6}\text{cm}^3/(\text{P}\cdot\text{V}\cdot\text{h})$]	(Original)	—
Allowable PV [kPa·m/sec]	(Original)	—

The material properties in above table are only for reference, measured by each test methods, and do not guarantee minimum value. And these properties might be changed without notice, so it is recommended to refer the data in the newest catalogues.