

Polyacetal specification

Property	ASTM Test Method	Delrin®	Copolymer POM	BST-G BST-B	M5BK
Specific Gravity	D792	1.42	1.41	1.38	1.38
Tensile Strength [MPa]	D638	75	62	54	57
Tensile Elongation [%]	D638	30	50	50	30
Young's Modulus [10^3 MPa]	D638	2.8	2.8	2.0	1.7
Compressive Strength at 5% strain [MPa]	D695	124	108	74	66
Flexural Strength [MPa]	D790	97	89	72	75
Izod Notched Impact Strength (1/2in×1/2in notched, 23°C) [J/m]	D256	80	100	90	90
Rockwell Hardness	D785	R120	R115	R114	R110
Thermal Conductivity [W/(m·K)]	C177	0.17	0.17	0.17	—
Specific Heat [J/(kg·K)]	—	1,460	1,460	—	—
Coefficient of Linear Expansion [$10^{-5}/^{\circ}\text{C}$]	D696	9.0	10.0	10.0	10.0
Continuous Use Temperature [°C]	—	90	90	90	—
Deflection Temperature [°C]	0.451MPa	170	158	—	—
	1.813MPa	124	110	105	110
Volume Resistivity (23°C 50% RH) [$\Omega\cdot\text{m}$]	D257	6×10^{12}	6×10^{12}	10^{12}	—
Dielectric Strength [kV/mm]	shorttime 3.2mm thickness step	15	20	17	—
	3.2mm thickness	13	—	—	—
Dielectric Constant	60Hz	3.7	3.7	—	—
	10^3 Hz	3.7	3.7	—	—
	10^6 Hz	3.7	3.1	—	—
Dissipation Factor	60Hz	3×10^{-3}	1×10^{-3}	—	—
	10^3 Hz	2×10^{-3}	2×10^{-3}	—	—
	10^6 Hz	5×10^{-3}	7×10^{-3}	—	—
Arc resistance [sec]	D495	125	240	240	—
Water Absorption (24 hours 3.2mm Thickness) [%]	D570	0.25	0.22	0.22	0.22
Flammability or Rate of Burning	D635/ UL94	—	—	—	—
sunlight resistances (color change)	—	slightly bleach	slightly bleach	—	—
Weak acid resistances	D543	resist some chemical	resist some chemical	resist some chemical	resist some chemical
Strong acid resistances	D543	non resistance	non resistance	non resistance	non resistance
Weak alkali resistances	D543	resist some chemical	resist some chemical	resist some chemical	resist some chemical
Strong alkali resistances	D543	resist some chemical	resist some chemical	resist some chemical	resist some chemical
Organic solvent resistances	D543	resist	resist	resist	resist
Transparency	—	opaque	opaque	opaque	opaque
Sand slurry Wear (SS400 ≈100)	(Original)	230	230	100	—
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)	1.6	1.7	0.9	—
Allowable PV [kPa·m/sec]	(Original)	490	490	1,300	1,630

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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.