

■ABS

Property	ASTM Test Method	ABS	
Specific Gravity	D792	1.05	
Tensile Strength [MPa]	D638	27~48	
Tensile Elongation [%]	D638	27.0~48.0	
Young's Modulus [10^3 MPa]	D638	1.5~2.6	
Compressive Strength at 5% strain [MPa]	D695	39	
Flexural Strength [MPa]	D790	44	
Izod Notched Impact Strength (1/2in×1/2in notched, 23°C) [J/m]	D256	147	
Rockwell Hardness	D785	R105	
Thermal Conductivity [W/(m·K)]	C177	0.16	
Specific Heat [J/(kg·K)]	—	1,250~1,670	
Coefficient of Linear Expansion [$10^{-5}/^{\circ}\text{C}$]	D696	8.0	
Continuous Use Temperature [°C]	—	80	
Deflection Temperature [°C]	D648	0.451MPa	99~107
		1.813MPa	93~104
Volume Resistivity (23°C 50% RH) [$\Omega\cdot\text{m}$]	D257	$1\sim 4.8\times 10^{12}$	
Dielectric Strength [kV/mm]	D149	shorttime 3.2mm thickness step	14~20
		3.2mm thickness	14~18
Dielectric Constant	D150	60Hz	2.4~5.0
		10^3 Hz	2.4~4.5
		10^6 Hz	2.4~3.8
Dissipation Factor	D150	60Hz	0.003~0.008
		10^3 Hz	0.004~0.007
		10^6 Hz	0.007~0.015
Arc resistance [sec]	D495	50~85	
Water Absorption (24 hours 3.2mm Thickness) [%]	D570	0.40	
Flammability or Rate of Burning	D635/ UL94	—	
sunlight resistances (color change)	—	slightly discolor	
Weak acid resistances	D543	resist	
Strong acid resistances	D543	resist	
Weak alkali resistances	D543	resist	
Strong alkali resistances	D543	resist	
Organic solvent resistances	D543	resist(except Ketone, Ester and Chlorinated aliphatic compound)	
Transparency	—	opaque	
Sand slurry Wear (SS400 =100)	(Original)	2,200	
Thrust Wear (by S45C P=1,960kPa V=0.25m/sec [$\times 10^{-6}\text{cm}^3/(P\cdot V\cdot h)$])	(Original)	37	
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.