



■High Density Polyethylene HDPE

Property		ASTM Test Method	Standard
Specific Gravity		D792	0.95
Tensile Strength [MPa]		D638	24
Tensile Elongation [%]		D638	300~
Young's Modulus [10 ³ MPa]		D638	0.5
Compressive Strength at 5% strain [MPa]		D695	16
Flexural Strength [MPa]		D790	26
Izod Notched Impact Strength (1/2in×1/2in notched, 23°C) [J/m]		D256	30~50
Rockwell Hardness		D785	—
Thermal Conductivity [W/(m·K)]		C177	0.38
Specific Heat [J/(kg·K)]		—	2,300
Coefficient of Linear Expansion [10 ⁻⁵ /°C]		D696	11.0
Continuous Use Temperature [°C]		—	70
Deflection Temperature [°C]	0.451MPa	D648	70
	1.813MPa		—
Volume Resistivity (23°C 50% RH) [Ω·m]		D257	—
Dielectric Strength [kV/mm]	shorttime 3.2mm thickness	D149	—
	step 3.2mm thickness		—
	3.2mm thickness		
Dielectric Constant	60Hz	D150	—
	10 ³ Hz		—
	10 ⁶ Hz		2.3
Dissipation Factor	60Hz	D150	—
	10 ³ Hz		—
	10 ⁶ Hz		—
Arc resistance [sec]		D495	—
Water Absorption (24 hours 3.2mm Thickness) [%]		D570	<0.01
Flammability or Rate of Burning		D635/ UL94	—
sunlight resistances (color change)		—	—
Weak acid resistances		D543	resist
Strong acid resistances		D543	resist(except Oxidizing acid)
Weak alkali resistances		D543	resist
Strong alkali resistances		D543	resist
Organic solvent resistances		D543	resist(under 80 degrees Celsius)
Transparency		—	opaque
Sand slurry Wear (SS400 =100)		(Original)	81
Thrust Wear (by S45C P=1,960kPa V=0.25m/sec) [×10 ⁻⁶ cm ³ /(P·V·h)]		(Original)	18
Allowable PV [kPa·m/sec]		(Original)	160

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.