

# 高密度聚乙烯 High Density Polyethylene (HDPE)

## 特性 PROPERTIES



特性 Properties	测试方法 Test Method (ASTM)	单位 Unit	注 塑 Injection					瓶 盖 Cap		中 空 Blow Molding				
			HD1200J	HD1100J	HD1600J	HD2208J	HD2308J	HD2209J	HD1600JP	HD2200JP	HD5200B	HD6200B	HD6600B	HD4200B
MFR 190°C, 2.16 kg	D1238	g/10 min	28	18	12	3.7	6	3.7	12	3.5	0.45	0.45	0.40	0.60
密度 Density	D1505	g/cm <sup>3</sup>	0.960	0.958	0.958	0.961	0.962	0.954	0.958	0.961	0.966	0.962	0.957	0.965
熔融温度 Melting Temp	D2117	°C	131	128	129	131	131	129	129	131	133	131	133	132
屈服拉伸强度 Tensile Strength at Yield	D638	kg/cm <sup>2</sup>	260	300	280	310	300	250	290	310	320	330	320	310
破断拉伸强度 Tensile Strength at Break	D638	kg/cm <sup>2</sup>	230	230	200	220	120	280	200	210	350	350	400	230
破断伸长率 Elongation at Break	D638	%	20	60	210	>1000	750	>1000	230	>1000	>1000	1000	1000	>1000
硬度 Stiffness	D747	kg/cm <sup>2</sup>	9500	10000	9000	11000	11000	8300	9100	11000	11000	10000	10000	12000
挠曲模量 Flexural Modulus	D790	kg/cm <sup>2</sup>	14200	12500	13500	12000	15000	11900	13500	14500	17500	15000	14000	18000
缺口Izod冲击强度 Notched Izod Impact Strength	D256	kg.cm/cm	2 (C)*	4 (C)*	3 (C)*	5 (C)*	4 (C)*	5 (C)*	3 (C)*	5 (C)*	15 (P)*	12 (P)*	15 (P)*	13 (P)*
计示硬度 Durometer Hardness	D2240	Shore D	62	64	64	65	65	64	64	66	66	65	65	65
维卡耐热度 Vicat Softening Point	D1525	°C	116	116	118	125	125	122	118	126	127	125	125	125
ESCR: 25% Igepal, F <sub>50</sub> (10% Igepal)	D1693	Hours	初始破裂 Initial Break	初始破裂 Initial Break	5	6	5	8	5 (3)	6 (4)	30	60	400	25
应用 Application			母料载体 Master batch carrier	小部件、文具、家用产品、玩具、垃圾箱、货盘、板条箱 Small part, Stationery, Household products, Toys, Garbage bins, Pallets, Crates					矿物、静止水、发泡水及碳酸气水的瓶盖 Cap & Closure for mineral, stilled, sparkling and carbonated water		食品包装、饮用水瓶、牛奶瓶、个人护理用品、清洁剂、润滑油容器 Food packaging, Drinking water bottles, Milk bottles, Personal cares, Detergent, Lubricant oil containers			

特性 Properties	测试方法 Test Method (ASTM)	单位 Unit	中 空 Blow Molding		热 力 塑 型 Thermoform	单 丝 Monofilament	吹 膜 Film			管 材 Pipe		线 缆 Wire & Cable			
			HD7200B	HD8200	HD7000H	HD5000S	HD6000F	HD7000F	HD8000F	HD6366M	HD6366MB	HD8100M	HD8100MB	HD6376EB	HD6396EB
MFR 190°C, 2.16 kg	D1238	g/10 min	0.04	0.03	0.1	0.8	0.16	0.04	0.03	0.06	0.06	0.04	0.03	0.05	0.05
MFR 190°C, 5 kg (21.6 kg)	D1238	g/10 min	(8)	(4)	(10)					0.34	0.30	0.22	0.20	0.29	0.29
密度 Density	D1505	g/cm <sup>3</sup>	0.956	0.955	0.952	0.954	0.956	0.956	0.950	0.952	0.961	0.952	0.962	0.962	0.962
熔融温度 Melting Temp	D2117	°C	130	131	130	130	131	129	128	128	128	128	128	129	129
屈服拉伸强度 Tensile Strength at Yield	D638	kg/cm <sup>2</sup>	300	300	280	290	260	300	300	230	230	250	240	230	240
破断拉伸强度 Tensile Strength at Break	D638	kg/cm <sup>2</sup>	350	370	400	390	370	390	320	340	330	420	370	330	350
破断伸长率 Elongation at Break	D638	%	800	850	900	>1000	950	820	790	800	800	750	780	750	800
硬度 Stiffness	D747	kg/cm <sup>2</sup>	10000	9000	8500	8500	8200	9500	7900	7500	7800	7500	8000	8000	8300
弯曲模量 Flexural Modulus	D790	kg/cm <sup>2</sup>	12000	12000	11000	12000	11000	12000	12500	11200	10000	11000	11500	10000	10000
缺口Izod冲击强度 Notched Izod Impact Strength	D256	kg.cm/cm	25 (NB)*	64 (NB)*	47 (NB)*	23 (P)*	27 (NB)*	30 (NB)*	52 (NB)*	45 (NB)*	50 (NB)*	48 (NB)*	50 (NB)*	40 (NB)*	41 (NB)*
计示硬度 Durometer Hardness	D2240	Shore D	63	64	63	64	64	64	62	63	63	64	64	63	63
维卡耐热度 Vicat Softening Point	D1525	°C	124	128	126	125	125	125	123	122	122	124	124	122	122
ESCR: 25% Igepal, F <sub>50</sub>	D1693	Hours	>1000	>1000	>1000	30	>500	>2000	>2000	>1000	>2000	>1000	>2000	>2000	>2000
维卡耐热度 Carbon Black Content	D4218	%									>2.0		>2.0	2.5	2.5
介电常数 1MHz Dielectric Constant, 1MHz	D150													2.5	2.5
耗散因数 1MHz Dissipation Factor, 1MHz	D150													0.005	0.005
体积电阻率 DC500V Volume Resistivity DC500V	D257	ohm.cm												10 <sup>16</sup>	10 <sup>16</sup>
应用 Application			吹膜桶、危险化学品桶 Large blow molding drums, Hazardous chemical drums		卡车衬材 燃料桶 Truck bed liners, fuel drums	绳、捕鱼网、农用网、防水油布 Ropes, Fishing nets, Agricultural nets, Tarpaulins	通用袋、购物袋、离型膜、滚动物、垃圾袋、工业膜 General purpose bags, Shopping bags, Liner films, Bags on roll, Garbage bags, Industrial films			高质量压力管、饮用水管、工业用管、下水道管 High quality pressure pipes, Drinking water pipes, Industrial pipes, Sewer pipes			高质量光纤电缆套 High quality fiber optic cable jacketing		

注: (1) C = 完全破裂 \*P = 部分破裂 \*NB = 不破裂所有的测试符合ASTM (美国材料试验协会)。  
 (2) 此处报道的特性为此产品的典型值, 不应被视为规格。InnoPlus对在此包含的信息的精确性和完整性不作任何担保。  
 Note: (1) \*C = Complete Break \*P = Partial Break \*NB = Non Break All test methods are referred to ASTM: American Society for Testing and Material Standard (ASTM)  
 (2) Properties reported here are typical values of the product, not to be considered as specifications. InnoPlus makes no representation as to the accuracy or completeness of the information contained herein



HDPE

InnoPlus 牌高密度聚乙烯 (HDPE) 是在低压聚合下使用三井科技的浆料工艺而制成的。此技术提供具有多种熔体流动率及密度的单峰及双峰分子结构, 使得 InnoPlus HDPE 具有极好的可加工性以及高机械强度, 这就使得多方面应用成为可能。InnoPlus HDPE 所采用的极佳的生产控制以及所选择的特定原材料使得其特性能符合所有特定的需要及国际标准与规定, 比如 U.S. FDA 21 CFR 177.1520。Inno Plus HDPE 也符合依据 2002/95/EC 号决议公布的有毒有害物质禁用指令。

InnoPlus HDPE is made from the low pressure polymerization using the slurry process of Mitsui Technology. This technology provides uni-modal and bi-modal molecular structure with wide range of melt flow rate and density that gives InnoPlus HDPE excellent processability together with high mechanical strength, which is suitable for various applications. Excellent production control and specific raw material selection of InnoPlus HDPE offers high certainty of specific properties to meet all particular needs and complies with international standard regulations i.e., U.S. FDA 21 CFR 177.1520. InnoPlus HDPE also meet the Restriction of Hazardous Substances (RoHS) according to 2002/95/EC.