



HD-PE

PIPE FITTING VALVE

HD-PE (高密度聚乙烯) 物性表

Specific properties (technical data sheet) for polyethylene (reference values)

	Property (特性)	Standard (標準)	Unit (單位)	PE80	PE100
	Density at 23°C (密度)	DIN 53 479 ISO/R 1183	g/cm ³	0.953	0.96
	Melt flow index (熔融指數) MFI 190/5 Code T MFI 230/5 Code V MFI range	DIN 53 735 ISO 1133	g/10 min	0.4-0.5 11-17 T 005	0.3-0.55 12-18 T 005
Mechanical properties (機械特性)	Tensile stress at yield (變形拉伸強度)	DIN 53 455 ISO/R 527	N/mm ²	21	24-25
	Elongation at yield (變形拉伸率)	DIN 53 455 ISO/R 527	%	10	8
	Tensile stress at break (斷裂拉伸強度)	DIN 53 495 ISO/R 527	N/mm ²	30-33	37
	Elongation at break (斷裂拉伸率)	DIN 53 455 ISO/R 527	%	>600	>600
	Flexural stress at 3.5% strain (撓曲強度)	DIN 53 452 ISO/R 178	N/mm ²	19	23
	Modulus of elasticity (彈性係數) (tensile test 拉力測試)	DIN 53 457 ISO/R 178	N/mm ²	800	1000
	Modulus in shear (剪力係數)	DIN 53 455 ISO/R 537	N/mm ²	500-600	-
	Ball indentation hardness (球壓硬度)	DIN 53 456 ISO 2039	N/mm ²	40	46
	Charpy impact strength at 23°C notched (夏比衝擊強度/有缺口)	DIN 53 453 ISO 179/2C	kJ/m ²	10	17-26
	Charpy impact strength at -30°C (夏比衝擊強度)	DIN 53 453 ISO 179/2D	kJ/m ²	16	9-13
Thermal properties (熱性)	Cristallinity melting temperate (熔點)	DIN 53 736	°C	128-133	128-135
	Vicat softening point (維卡軟化點) VST-A/50 VST-B/50	DIN 53 460 ISO/R 306	°C	- 67	127 68-77
	Deflection temperature under load (變形溫度) Methode A Methode B	DIN 53 461 ISO 75	°C	42 73	41 61
	Thermal conductivity (at 20°C) (熱傳導性)	DIN 53 612	W/mk	0.43	0.43
	Thermal expansion coefficient (熱膨脹係數)	DIN 53 752	1/°C	2.0*10 ⁻⁴	2.0*10 ⁻⁴
	Flammability(易燃性)	DIN 4102 part 1 ONORM B 3800 part 1 UL 94	-	B2 B2 -	B2 B2 -
Electrical properties (電性)	Specific volume resistivity (比容電阻)	DIN 53 482, part 1 IEC Publ. 243	Ohm cm	10 ¹⁵	>10 ¹⁵
	Dielectric strength (絕緣強度)	DIN 53 481 IEC Publ. 93	KV/mm	53	22-53
	Surface resistivity (表面電阻係數)	DIN 53 482 IEC Publ. 167	Ohm	>10 ¹⁵	>10 ¹⁵
	colour (顏色)	-	-	black	black



PP-H/PP-H(FRP COATED) PIPE FITTING VALVE

Specific Properties (Technical Data Sheet) for Polypropylene PP-H原料物性表

管材PP-H原料物性(PP-H material properties for the pipes):

項目 Items	試驗方法 ASTM Methods	單位 Units	(數值)
熔融指數 Melt Flow Index	D-1238 (230°C×2.16kg)	g/10 Min	0.35-0.50
抗張強度 Tensile Strength	D-638	kg/cm ²	270
彎曲模數 Flexural Modulus	D-790	kg/cm ²	11,000
洛氏硬度 Rockwell Hardness	D-785	R Scale	80
Izod 衝擊強度23°C Izod Impact Strength	D-256 (1/8" 厚)	kg-cm/cm	N.B
收縮率 Molding Shrinkage	FCFC	%	1.5
比重 Specific Gravity	D-792		0.9
熱變形溫度 Heat Deflection Temperature	D-648 (1/4" 厚)	°C	95

配件PP-H原料物性(PP-H material properties for the fittings):

項目 Items	試驗方法 ASTM Methods	單位 Units	(數值)
熔融指數 Melt Flow Index	D-1238 (230°C×2.16kg)	g/10 Min	0.5-0.6
抗張強度 Tensile Strength	D-638	kg/cm ²	270
彎曲模數 Flexural Modulus	D-790	kg/cm ²	11,000
洛氏硬度 Rockwell Hardness	D-785	R Scale	80
Izod 衝擊強度23°C Izod Impact Strength	D-256 (1/8" 厚)	kg-cm/cm	N.B
收縮率 Molding Shrinkage	FCFC	%	1.5
比重 Specific Gravity	D-792		0.9
熱變形溫度 Heat Deflection Temperature	D-648 (1/4" 厚)	°C	95

Rigid Poly Vinyl Chlorides (UPVC) and Chlorinated Poly Vinyl Chlorides (CPVC)

Compounds:

硬質UPVC, CPVC原料物性表

Property and Unit 原料物性及單位	Test Method (測試方法)	UPVC	CPVC
Impact Resistnace(Izod) 耐衝擊強度 J/m of notch ft*lb/in. of notch	ASTM D256	<34.7 <0.65	<34.7 <0.65
Tensile strength (min.) 拉伸強度(最小值) MPa psi	ASTM D638	<34.5 <5000	<34.5 <5000
Modulus of elasticity in tension(min) 拉伸彈性係數(最小值) MPa psi	ASTM D638	<1930 <280000	<1930 <280000
Deflection Temperature under load, min. 1.82MPa(264pis) 熱變形溫度, 分 °C °F	ASTM D648	<55 <131	<55 <131
Flmmability 燃性(平均測試時間<10s, 燃燒 <25mm)	ASTM D635	*	*

Note: * -All compounds covered by this specification when tested in accordance with Test Method D635. 所有原料依據 ASTM D635方法測試