



**ciw**

*Your Reliable Choice*

**集利工業有限公司**

**CIPLI INDUSTRIES SDN BHD (680207-M)**



The High Density Polyethylene (HDPE) pipe shall be made from base polymer and shall conform to the requirements as specified in MS 1058 Part 1 & 2: 2005 The base polymer shall be a single grade of polyethylene, PE 80 with a derived density greater than 0.93g/cm<sup>3</sup> tested at 23° C.

高密度聚乙烯 (HDPE) 为无毒、无味、无臭的黑色颗粒，熔点约为130°C。根据马来西亚SIRIM MS1058 Part 1 & 2: 2005 相对密度为0.93g/cm<sup>3</sup> 检验在23°C 它具有良好的耐热性和耐寒性，化学稳定性好，还具有较高的刚性和韧性，机械强度高。介电性能，耐环境应力开裂性亦较好。

## HDPE PIPE - DIMENSION

### DIMENSION FOR HDPE PIPE (Standard Weight) MS 1058 Part 2 : 2005 Nominal Pressure for Design stress 6.3 N/mm<sup>2</sup> (PE80)

O.D	PN 6 (SDR 21)			PN 10 (SDR 13)			PN12.5 (SDR 11)			PN 16 (SDR 9)		
	e min	e max	Wt	e min	e max	Wt	e min	e max	Wt	e min	e max	Wt
mm	mm	mm	kg/m	mm	mm	kg/m	mm	mm	kg/m	mm	mm	kg/m
20	-	-	-	-	-	-	2.0	2.3	0.131	2.3	2.7	0.131
25	-	-	-	2.0	2.3	0.169	2.3	2.7	0.169	3.0	3.4	0.215
32	-	-	-	2.4	2.8	0.229	3.0	3.4	0.280	3.6	4.1	0.325
40	2.0	2.3	0.281	3.0	3.5	0.358	3.7	4.2	0.427	4.5	5.1	0.507
50	2.4	2.8	0.370	3.7	4.2	0.546	4.6	5.2	0.663	5.6	6.3	0.786
63	3.0	3.4	0.583	4.7	5.3	0.87	5.8	6.5	1.05	7.1	8.0	1.26
75	3.6	4.1	0.822	5.6	6.3	1.21	6.8	7.6	1.47	8.4	9.4	1.77
90	4.3	4.9	1.18	6.7	7.5	1.74	8.2	9.2	2.12	10.1	11.3	2.55
110	5.3	6.0	1.77	8.1	9.1	2.62	10.0	11.1	3.16	12.3	13.7	3.78
125	6.0	6.7	2.28	9.2	10.3	3.37	11.4	12.7	4.08	14.0	15.6	4.89
140	6.7	7.5	2.83	10.30	11.5	4.22	12.7	14.1	5.09	15.7	17.4	6.13
160	7.7	8.6	3.71	11.80	13.1	5.51	14.6	16.2	6.68	17.9	19.8	8.15
180	8.6	9.6	4.67	13.30	14.8	7.00	16.4	18.2	8.62	20.1	22.3	10.30
200	9.6	10.7	5.78	14.70	16.3	8.58	18.2	20.2	10.60	22.4	24.8	12.70
225	10.8	12.0	7.31	16.60	18.4	11.10	20.5	22.7	13.50	25.2	27.9	16.10
250	11.9	13.2	8.94	18.40	20.4	13.70	22.7	25.1	16.60	27.9	30.8	19.80
280	13.4	14.9	11.30	20.60	22.8	17.20	25.4	28.1	20.80	31.3	34.6	24.90
315	15.0	16.6	14.20	23.20	25.7	21.80	28.6	31.6	26.30	35.2	38.9	31.50

PN = nominal Pressure (Bar) e min = Min. Wall Thickness e max = Max. Wall Thickness Wt = Pipe Weight

## HDPE PIPE Wall thicknesses - Material: PE 100

According to MS 1058 PART 2: 2005  
Dimension in millimetres

Nominal size (mm)	Pipe series									
	SDR 11		SDR 13.6		SDR 17		SDR 21		SDR 26	
	S 5	S 6.3	S 8	S 10	S 12.5					
	PN 16		PN 12.5		PN 10		PN 8		PN 6	
	e min	e max	e min	e max	e min	e max	e min	e max	e min	e max
20	2.0	2.3	-	-	-	-	-	-	-	-
25	2.3	2.7	2.0	2.3	-	-	-	-	-	-
32	3.0	3.4	2.4	2.8	2.0	2.3	-	-	-	-
40	3.7	4.2	3.0	3.5	2.4	2.8	2.0	2.3	-	-
50	4.6	5.2	3.7	4.2	3.0	3.4	2.4	2.8	2.0	2.3
63	5.8	6.5	4.7	5.3	3.8	4.3	3.0	3.4	2.5	2.9
75	6.8	7.6	5.6	6.3	4.5	5.1	3.6	4.1	2.9	3.3
90	8.2	9.2	6.7	7.5	5.4	6.1	4.3	4.9	3.5	4.0
110	10.0	11.1	8.1	9.1	6.6	7.4	5.3	6.0	4.2	4.8
125	11.4	12.7	9.2	10.3	7.4	8.3	6.0	6.7	4.8	5.4
140	12.7	14.1	10.3	11.5	8.3	9.3	6.7	7.5	5.4	6.1
160	14.6	16.2	11.8	13.1	9.5	10.6	7.7	8.6	6.2	7.0
180	16.4	18.2	13.3	14.8	10.7	11.9	8.6	9.6	6.9	7.7
200	18.2	20.2	14.7	16.3	11.9	13.2	9.6	10.7	7.7	8.6
225	20.5	22.7	16.6	18.4	13.4	14.9	10.8	12.0	8.6	9.6
250	22.7	25.1	18.4	20.4	14.8	16.4	11.9	13.2	9.6	10.7

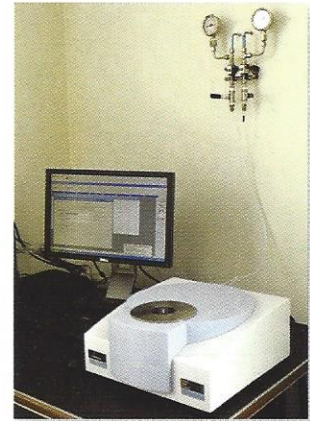
PN = nominal Pressure (Bar) e min = Min. Wall Thickness e max = Max. Wall Thickness

## Various Application of the HDPE pipe

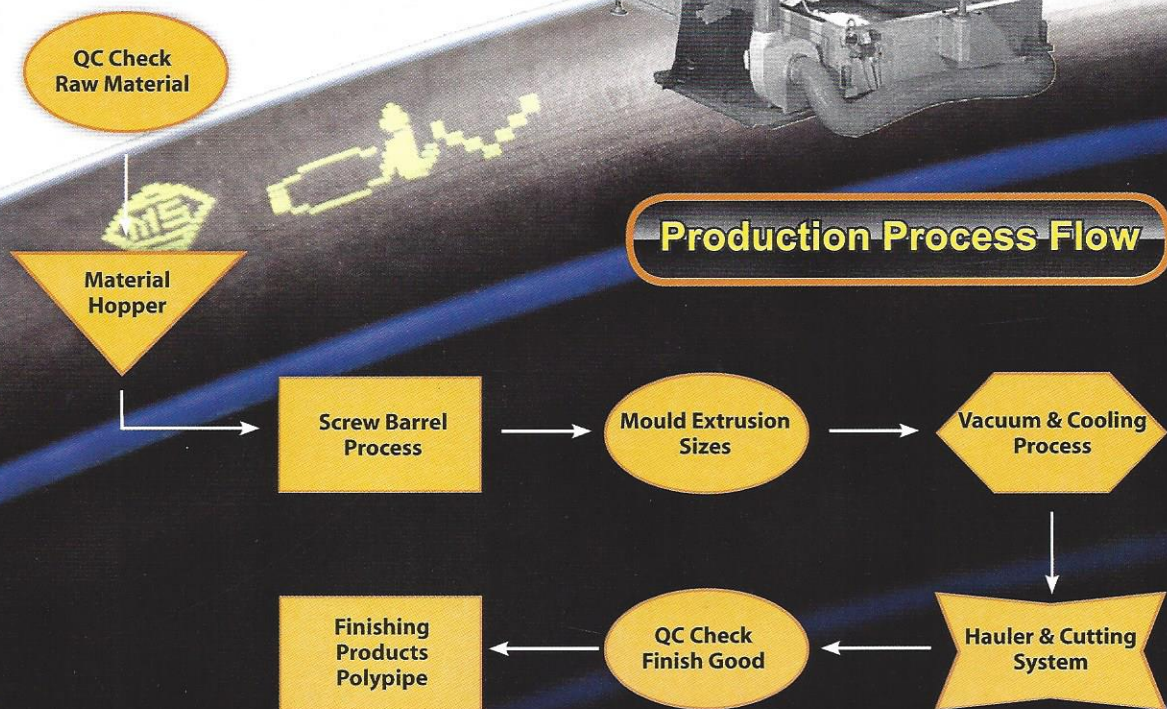
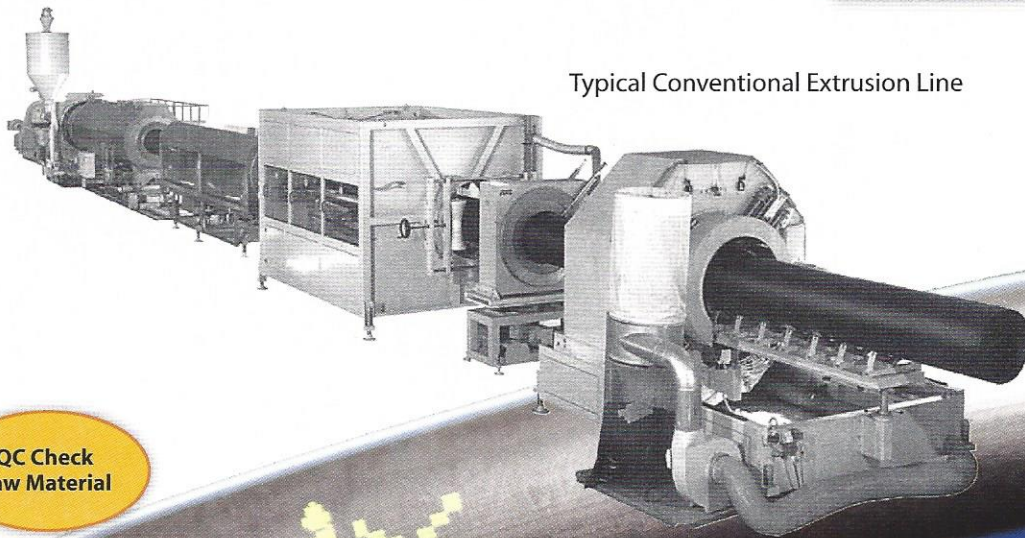
- Water Supply.
- Sewerage, Effluent and Waste Water.
- Industrial and Chemical - to transport aggressive fluids.
- Submerged Pipelines - for cable ducting, water and sewerage.
- Slurry Lines - to convey suspended solid matter in quarries and mine.
- Trenchless Construction - for water supply, sewers and gas.
- Gas Distribution.
- Mining - above and below ground installations.

## Quality Control

The Oxidative Induction Time (OIT) test method is a very good one for polyolefin materials and provides some highly informative information about the propensity of these polymers to withstand oxidative effects. The purpose are the heat flux based devices since they allow good access of the incoming oxygen purge gas to the polyolefin sample.



Typical Conventional Extrusion Line



# Joining Method for HDPE Pipe Systems

**Butt Welding**

**Stub Flanges and Backing Plates**

**Mechanical Compression Fitting**

**Electro - Fusion Welding**

Power connection terminals  
Heating element  
PE Pipe  
Coupling

diluluskan dan diperkenalkan oleh pihak kerajaan  
 approved and recommended by government and quality institution  
 各政府及各單位推介



**SPAN**  
 NO. 905 (Lorong Kubor)  
 SPAN/KPJA/00784-2011

**SIRIL PERAKIAN PENDAFTARAN PEMBEKAL**  
 (SUPPLIER REGISTRATION CERTIFICATION)

Adapun dengan ini dipaparkan bahawa syarikat atau pihak lain berikut yang berdaftar di bawah sistem pembekelan di bawah Pendaftaran Pembekal Air Negara yang dipaparkan adalah sebagai berikut: (This is to certify that the following companies and parties have been registered with the Supplier Registration for Water Supply under the National Water Services Commission Act, 1992.)

No. Pendaftaran (Registration No.)  
 Nama dan Alamat Syarikat (Name of Supplier)

SPAN/PE/006-31/10/1-000A  
 CIPLI INDUSTRIES SDN. BHD.  
 NO. 905, JALAN PERINDUSTRIAN BUKIT MINYAK 7, KAWASAN PERINDUSTRIAN BUKIT MINYAK, S.P.T. 14100 BUKIT MINYAK, PULAU PINANG.

**MALUMAT PRODUK ATAU SISTEM (PARTICULARS OF PRODUCT OR SYSTEM)**

Kategori (Category)	PAIP (PIPES)
Keperluan (Requirement)	PE PIPES FOR WATER SUPPLY
Model Produk atau Sistem (Product or System Design)	PE PIPES FOR WATER SUPPLY (DIAJUKKAN KEPADA SIRIM, 14100 BUKIT MINYAK, PULAU PINANG.) (SUBMITTED TO SIRIM, 14100 BUKIT MINYAK, PULAU PINANG.) (DIAJUKKAN KEPADA SIRIM, 14100 BUKIT MINYAK, PULAU PINANG.) (SUBMITTED TO SIRIM, 14100 BUKIT MINYAK, PULAU PINANG.)
Jenis (Type)	PE
Standard (Standard)	MS 3000 - PART 2 : 2005
Keperluan (Requirement)	SISTEM BUKIT MINYAK AIR
Nama dan Alamat Pembekal (Name and Address of Supplier)	CIPLI INDUSTRIES SDN. BHD. 905 BUKIT MINYAK S.P.T., PULAU PINANG.
Nama dan Alamat Pengilang (Name and Address of Manufacturer)	CIPLI INDUSTRIES SDN. BHD. 905 BUKIT MINYAK S.P.T., PULAU PINANG.

31 MAC 2011

SP yang diterbitkan adalah terbitan kepada SYARAT SYARAT AIR (Mekaplan A) dan SYARAT SYARAT KUALITI (Mekaplan B) terbitan oleh SPAN. (The Certificate issued is subject to the GENERAL CONDITIONS (Section A) and SPECIFIC CONDITIONS (Section B).)

[SARIF YEOH HUI] (SARIF YEOH HUI)  
 Ketua Pengarah (General Manager)  
 Surabanjaya Perkhidmatan Air Negara

Tarikh Dikeluarkan (Issue Date): 31 MARCH 2011

**SIRIM QAS**  
 No. Lesen: PC920004  
 CANTON: 01

**LESEN PENSIJILAN BARANGAN**  
 Product Certification Licence

SIRIM QAS International Sdn. Bhd. dengan ini mengesahkan kepada CIPLI INDUSTRIES SDN. BHD. lesen untuk menggunakan Tanda Pendaftaran di atas barangan di bawah di atas the Certification Mark as:

**CIPLI INDUSTRIES SDN. BHD.**  
 NO. 905, JALAN PERINDUSTRIAN BUKIT MINYAK 13 KAWASAN PERINDUSTRIAN BUKIT MINYAK, S.P.T. 14100 BUKIT MINYAK, PULAU PINANG.

Lesen untuk menggunakan Tanda Pendaftaran di atas barangan di bawah di atas the Certification Mark as:

**POLYETHYLENE (PE) PIPES FOR WATER SUPPLY**

Please refer to detail in the SCHEDULE.

Ingatlah mematuhi keperluan air company with

MS 1000: PART 2: 2005

25 October 2010  
 25 October 2011  
 No. Bil. / 1972

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