

POLYPIPE

Water & Civil Systems





Benefits of Poly Pipe

- ✓ Long lengths
- ✓ Cost effectiveness
- ✓ Easy of installation
- ✓ Flexibility & resilience
- ✓ Chemical resistance
- ✓ Corrosion resistance
- ✓ Abrasion resistance
- ✓ High flow capacity
- ✓ Weathering resistance
- ✓ Durability
- ✓ High impact resistance

About Poly Pipe Pty Ltd

Located in the Hunter Valley, NSW, Australia, Poly Pipe Pty Ltd (Poly Pipe) has an ultra modern extrusion, high tech manufacturing facility.

It supplies Polyethylene (PE) pipe and related products that comply with all relevant Australian statutory and regulatory requirements.

In addition Poly Pipe adheres and advances safe work practices, effective environmental policies and quality practices in everything that it does.

As a member of a worldwide technology group with Australia-wide manufacturing facilities, Poly Pipe was established on the knowledge, experience, and reputation of its associated companies, some of which include Pipemakers and Metroll.

Its national and international customers are found in the mining, rural and irrigation, water and civil, telecommunication, sewerage and drainage industries.

Industry Applications

- ✓ Telecommunications
- ✓ Electrical
- ✓ Mining
- ✓ Water
- ✓ Gas
- ✓ Air
- ✓ Irrigation
- ✓ Sewerage & Drainage
- ✓ Civil Applications

Features

- ✓ Material Grade: PE 100
- ✓ Coils: Max pipe diameter can be coiled 140 mm
- ✓ Standard length from 12m
- ✓ Colour Jacket: White, blue, purple, cream
- ✓ Colour Stripe: Blue, purple, cream

Product Information

Polyethylene (PE) pipe is used for numerous water and civil applications including domestic water supply, drainage of major roads and highways, agricultural drainage and sports oval drainage, race tracks, golf courses, parks and gardens.

Pipe is manufactured under AS/NZS 4130 from PE that complies with AS/NZS 4131. PE Standards and WaterMark licensed to AS/NZS 4130 by SAI Global.

It is an easy to install system that is strong, flexible and corrosion resistant.

PE pipe can be joined using compression fittings, electrofusion systems or butt-welding.



Pressure Unit Conversion

PN	kPa	m	bar	psi
4.0	400	40	4.0	58
6.3	630	63	6.3	90
8.0	800	80	8.0	116
10.0	1000	100	10.0	145
12.5	1250	125	12.5	181
16.0	1600	160	16.0	229
20.0	2000	200	20.0	290

Support Distances PE100

Size (mm)	PN 6.3	PN 8	PN 10	PN 12.5	PN 16	PN 20
20	0.5	0.5	0.6	0.6	0.6	0.7
25	0.5	0.6	0.7	0.7	0.7	0.8
32	0.6	0.7	0.8	0.8	0.9	0.9
40	0.7	0.9	0.9	1.0	1.0	1.1
50	0.9	1.0	1.0	1.1	1.2	1.2
63	1.0	1.2	1.2	1.3	1.4	1.4
75	1.1	1.3	1.4	1.5	1.5	1.6
90	1.3	1.5	1.6	1.7	1.7	1.8
110	1.5	1.7	1.8	1.9	2.0	2.1
125	1.6	1.8	2.0	2.1	2.2	2.3
140	1.7	2.0	2.1	2.2	2.4	2.5
160	1.9	2.2	2.3	2.5	2.6	2.7
200	2.2	2.5	2.7	2.9	3.0	3.2

Pipe Capacity of Poly Pipe Trucks-PE100

Pipe Outside Diameter (mm)	No. of Pipes
63 (100m)	35
75 (100m)	25
90 (100m)	24
110 (100m)	20
110	300
125	224
140	195
160	132
180	120
200	100
225	81
250	64
280	56
315	42
355	42
400	30
450	25
500	20
560	15
630	12
710	9
800	6

Guide Only: Weight restrictions may apply. Maximum weight for all trailers is 19T. Special trailers may carry more. Contact the Poly Pipe sales office for clarification.

Metric Standard Dimensions to AS/NZ 4130:2009

Nom Size	PN Rating	SDR Rating	OD Min (mm)	OD Max (mm)	Ovality	Min Wall (mm)	Max Wall (mm)	Kgs / m	STD Length (m)
32mm PN6.3	6.3	26	32.00	32.30	0.60	1.60	1.90	0.16	200.00
40mm PN6.3	6.3	26	40.00	40.40	0.80	1.60	1.90	0.20	150.00
50mm PN6.3	6.3	26	50.00	50.50	1.00	2.00	2.30	0.31	150.00
63mm PN6.3	6.3	26	63.00	63.60	1.20	2.40	2.80	0.48	100.00
75mm PN6.3	6.3	26	75.00	75.70	1.50	2.90	3.30	0.67	12.00
90mm PN6.3	6.3	26	90.00	90.90	1.80	3.50	4.00	0.98	12.00
110mm PN6.3	6.3	26	110.00	111.00	2.20	4.30	4.90	1.47	12.00
125mm PN6.3	6.3	26	125.00	126.20	2.50	4.80	5.40	1.85	12.00
140mm PN6.3	6.3	26	140.00	141.30	2.80	5.40	6.10	2.34	12.00
160mm PN6.3	6.3	26	160.00	161.50	3.20	6.20	7.00	3.06	12.00
180mm PN6.3	6.3	26	180.00	181.70	3.60	6.90	7.70	3.81	12.00
32mm Pn8	8	21	32.00	32.30	0.60	1.60	1.90	0.16	200.00
40mm Pn8	8	21	40.00	40.40	0.80	1.90	2.20	0.24	150.00
50mm Pn8	8	21	50.00	50.50	1.00	2.40	2.80	0.37	150.00
63mm Pn8	8	21	63.00	63.60	1.20	3.00	3.40	0.58	100.00
75mm Pn8	8	21	75.00	75.70	1.50	3.60	4.10	0.83	100.00
90mm Pn8	8	21	90.00	90.90	1.80	4.30	4.90	1.19	100.00
110mm Pn8	8	21	110.00	111.00	2.20	5.30	6.00	1.78	12.00
125mm Pn8	8	21	125.00	126.20	2.50	6.00	6.70	2.28	12.00
140mm Pn8	8	21	140.00	141.30	2.80	6.70	7.50	2.86	12.00
160mm Pn8	8	21	160.00	161.50	3.20	7.70	8.60	3.74	12.00
180mm Pn8	8	21	180.00	181.70	3.60	8.60	9.60	4.71	12.00
32mm Pn10	10	17	32.00	32.30	0.60	1.90	2.20	0.19	200.00
40mm Pn10	10	17	40.00	40.40	0.80	2.40	2.80	0.29	150.00
50mm Pn10	10	17	50.00	50.50	1.00	3.00	3.40	0.45	150.00
63mm Pn10	10	17	63.00	63.60	1.20	3.80	4.30	0.72	100.00
75mm Pn10	10	17	75.00	75.70	1.50	4.50	5.10	1.02	100.00
90mm Pn10	10	17	90.00	90.90	1.80	5.40	6.10	1.47	100.00
110mm Pn10	10	17	110.00	111.00	2.20	6.60	7.40	2.18	12.00
125mm Pn10	10	17	125.00	126.20	2.50	7.40	8.30	2.78	12.00
140mm Pn10	10	17	140.00	141.30	2.80	8.30	9.30	3.49	12.00
160mm Pn10	10	17	160.00	161.50	3.20	9.50	10.60	4.56	12.00
180mm Pn10	10	17	180.00	181.70	3.60	10.70	11.90	5.77	12.00
32mm Pn12.5	12.5	13.6	32.00	32.30	0.60	2.40	2.80	0.23	200.00
40mm Pn12.5	12.5	13.6	40.00	40.40	0.80	3.00	3.40	0.36	150.00
50mm Pn12.5	12.5	13.6	50.00	50.50	1.00	3.70	4.20	0.55	150.00
63mm Pn12.5	12.5	13.6	63.00	63.60	1.20	4.70	5.30	0.88	100.00
75mm Pn12.5	12.5	13.6	75.00	75.70	1.50	5.50	6.20	1.22	100.00
90mm Pn12.5	12.5	13.6	90.00	90.90	1.80	6.60	7.40	1.76	100.00
110mm Pn12.5	12.5	13.6	110.00	111.00	2.20	8.10	9.10	2.64	100.00
125mm Pn12.5	12.5	13.6	125.00	126.20	2.50	9.20	10.30	3.40	12.00
140mm Pn12.5	12.5	13.6	140.00	141.30	2.80	10.30	11.50	3.49	12.00
160mm Pn12.5	12.5	13.6	160.00	161.50	3.20	11.80	13.10	5.56	12.00
180mm Pn12.5	12.5	13.6	180.00	181.70	3.60	13.30	14.80	7.06	12.00
32mm Pn16	16	11	32.00	32.30	0.60	2.90	3.30	0.27	200.00
40mm Pn16	16	11	40.00	40.40	0.80	3.70	4.20	0.43	150.00
50mm Pn16	16	11	50.00	50.50	1.00	4.60	5.20	0.67	150.00
63mm Pn16	16	11	63.00	63.60	1.20	5.80	6.50	1.06	100.00
75mm Pn16	16	11	75.00	75.70	1.50	6.80	7.60	1.48	100.00
90mm Pn16	16	11	90.00	90.90	1.80	8.20	9.20	2.14	100.00
110mm Pn16	16	11	110.00	111.00	2.20	10.00	11.10	3.18	100.00
125mm Pn16	16	11	125.00	126.20	2.50	11.40	12.70	4.12	12.00
140mm Pn16	16	11	140.00	141.30	2.80	12.70	14.10	5.13	12.00
160mm Pn16	16	11	160.00	161.50	3.20	14.60	16.20	6.74	12.00
180mm Pn16	16	11	180.00	181.70	3.60	16.40	18.20	8.52	12.00

Please Note: ALL dimensions and weights are approximate and are subject to change without notice.

Metric Standard Dimensions to AS/NZ 4130:2009

Nom Size	PN Rating	SDR Rating	OD Min (mm)	OD Max (mm)	Ovality	Min Wall (mm)	Max Wall (mm)	Kgs / m	STD Length (m)
32mm Pn20	20	9	32.00	32.30	0.60	3.60	4.10	0.33	200.00
40mm Pn20	20	9	40.00	40.40	0.80	4.50	5.10	0.51	150.00
50mm Pn20	20	9	50.00	50.50	1.00	5.60	6.30	0.79	150.00
63mm Pn20	20	9	63.00	63.60	1.20	7.10	8.00	1.27	100.00
75mm Pn20	20	9	75.00	75.70	1.50	8.40	9.40	1.78	100.00
90mm Pn20	20	9	90.00	90.90	1.80	10.10	11.30	2.57	100.00
110mm Pn20	20	9	110.00	111.00	2.20	12.30	13.70	3.82	100.00
125mm Pn20	20	9	125.00	126.20	2.50	14.00	15.50	4.92	12.00
140mm Pn20	20	9	140.00	141.30	2.80	15.70	17.40	6.19	12.00
160mm Pn20	20	9	160.00	161.50	3.20	17.90	19.80	8.06	12.00
180mm Pn20	20	9	180.00	181.70	3.60	20.10	22.30	10.19	12.00

Please Note: ALL dimensions and weights are approximate and are subject to change without notice.

Pipe Coil Lengths

Nom Size	Min Wall (mm)	Mean ID (mm)	Coil OD (mm)	Coil ID (mm)
32mm PN8	200.00	1000	300	1410
40mm PN8	150.00	1000	300	1500
50mm PN8	150.00	1300	300	1900
63mm PN8	100.00	1800	300	2300
75mm PN8	100.00	1900	330	2500
90mm PN8	100.00	2200	360	3000
32mm PN10	200.00	1000	300	1410
40mm PN10	150.00	1000	300	1500
50mm PN10	150.00	1300	300	1900
63mm PN10	100.00	1600	300	2200
75mm PN10	100.00	1900	330	2500
90mm PN10	100.00	2200	360	3000
110mm PN10	100.00	2000	450	2880
32mm PN12.5	200.00	700	300	1200
40mm PN12.5	150.00	1000	300	1500
50mm PN12.5	150.00	1050	300	1750
63mm PN12.5	100.00	1300	300	1950
75mm PN12.5	100.00	1900	330	2400
90mm PN12.5	100.00	1900	400	2650
110mm PN12.5	100.00	2000	450	2880
32mm PN16	200.00	700	300	1200
40mm PN16	150.00	1000	300	1500
50mm PN16	150.00	1050	300	1750
63mm PN16	100.00	1300	300	1950
75mm PN16	100.00	1900	330	2400
90mm PN16	100.00	1900	400	2650
110mm PN16	100.00	2000	450	2880
32mm PN20	200.00	700	300	1200
40mm PN20	150.00	1000	300	1500
50mm PN20	150.00	1050	300	1750
63mm PN20	100.00	1300	300	1950
75mm PN20	100.00	1900	330	2400
90mm PN20	100.00	1900	400	2650

Please Note: ALL dimensions and weights are approximate and are subject to change without notice.

Maximum Allowable Operating Pressure - PE100 (Black)

Temp (°C)	Design Life (yrs)	Design Factor	PN 4	PN 6.3	PN 8	PN 10	PN 12.5	PN 16	PN 20	PN 25
			SDR 41	SDR 26	SDR 21	SDR 17	SDR 13.6	SDR 11	SDR 9	SDR 7.4
20	100	1.0	40	64	80	100	127	160	200	250
25	100	1.1	36	58	73	91	115	145	182	227
30	100	1.1	36	58	73	91	115	145	182	227
35	50	1.2	33	53	67	83	106	133	167	208
40	50	1.2	33	53	67	83	106	133	167	208
45	35	1.3	31	49	62	77	99	123	154	192
50	22	1.4	29	46	57	71	91	114	143	179
55	15	1.4	29	46	57	71	91	114	143	179
60	7	1.5	27	43	53	67	85	107	133	167
80	1	2.0	20	32	40	50	63	80	100	125

The design life periods may be considered to be the minimum potential service lives and represent the maximum extrapolated periods permitted by the ISO 9080:2003 extrapolation rules given the available test data.

Comparison of SDR & Pressure Ratings (PN)

SDR	41	33	26	21	17	13.6	11	9	7.4
PE80	PN 3.2	PN 4	-	PN 6.3	PN 8	PN 10	PN 12.5	PN 16	PN 20
PE100	PN 4	-	PN 6.3	PN 8	PN 10	PN 12.5	PN 16	PN 20	PN 25

SDR: Nominal ratio of outside diameter to wall thickness.

PN: Pressure rating at 20DC (MPa multiplied by 10).

PE Classification: Long term rupture stress at 20DC (MPa multiplied by 10) to which the minimum safety factor of 1.25 is applied in order to obtain the 20DC design hoop stress.

Standard Pipe Colour Chart

Colour	Common Use
Blue	Water
Orange	Electrical Conduit
Yellow	Gas - PE100
Light Yellow	Gas - PE80
Red	Fire Service Water
Green	Imperial Rural/Raw Water
Purple	Recycled/Reclaimed Water
Grey	SewerFlex
Cream	Pressure Sewer
White	Communications Conduit

Poly Pipe aims to meet its commitment to quality through continuous improvement programs, use of latest technology, close co-operation with key suppliers, commitment to staff development and regular customer feedback.

The Poly Pipe manufacturing plant has Quality Assurance Certification to ISO 9001:2008. All Pressure Pipes, including Gas, have the WaterMark and Standards Certification.

External Agencies carry out regular audits to provide third party accreditation to the Poly Pipe Quality Management System and verify its ongoing compliance with this Standard.

POLYPIPE

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