

POLYPIPE

Telecommunications Pipe





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.

Benefits of Poly Pipe

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

Product Information

Poly Pipe provides high quality Polyethylene (PE) pipe to the telecommunication and electrical industries to protect their vital network of cables that transmit information throughout Australia and worldwide.

This pipe withstands high tensile loads applied during underboring and tolerates the crushing pressures that accompany being installed underground.

Joining of conduits is made easy by the use of thermal or electrofusion welding techniques. Standard compression fittings used for metric poly pressure pipes are also suitable.

All PE Communications Conduits and Subducts are made in continuous lengths that allow customers to order custom coil lengths.

Poly Pipe cable is supplied in coils or lengths and manufactured using only quality PE100 materials to Australian Standard 1159.



Industry Applications

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

Features

- Material Grade: PE 100
- Coils: Max pipe diameter that can be coiled 160mm
- Standard length is 6 & 12m
- Colour Jacket: White/orange outer jacket with black inner & solid black
- Colour Stripe: White
- Class 6, 9; SDR9, 11, 13.6, 17

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.



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

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

Dimensions

Nom Size	O/D		ID		Wall		Ovality	WT/ MT	IF Stripe - Min width
	Min	Max	Min	Max	Min	Max			
25mm 9	25.00	25.30	20.00	21.10	2.10	2.50	0.75	0.16	1.5
32mm 6	32.00	32.30	27.60	28.50	1.90	2.20	0.96	0.19	1.9
32mm 9	32.00	32.30	25.80	26.90	2.70	3.10	0.96	0.26	1.9
40mm 6	40.00	40.40	34.60	35.80	2.30	2.70	1.20	0.29	2.4
40mm 9	40.00	40.40	32.20	33.60	3.40	3.90	1.20	0.40	2.4
50mm 6	50.00	50.40	43.40	44.60	2.90	3.30	1.50	0.44	2.9
50mm 9	50.00	50.40	40.40	42.00	4.20	4.80	1.50	0.62	2.9
63mm 9	63.00	63.50	51.00	52.90	5.30	6.00	1.89	0.98	3.7
110mm 6	110.00	110.90	95.80	98.30	6.30	7.10	3.30	2.10	6.5
110mm 9	110.00	110.90	89.40	92.50	9.20	10.30	3.30	2.96	6.5
125mm 9	125.00	126.00	101.80	105.20	10.40	11.60	3.75	3.80	7.4
140mm 9	140.00	141.20	114.00	117.80	11.70	13.00	4.20	4.78	8.2
160mm 6	160.00	161.30	0.00	0.00	9.20	10.30	4.80	4.44	9.4
160mm 9	160.00	161.30	0.00	0.00	13.40	14.90	4.80	6.26	9.4
200mm 6	200.00	201.60	0.00	0.00	11.50	12.80	6.00	6.92	11.8
200mm 9	200.00	201.60	0.00	0.00	16.70	18.50	6.00	9.73	11.8
225mm 6	225.00	226.80	0.00	0.00	12.90	14.30	6.75	8.71	13.3
225mm 9	225.00	226.80	0.00	0.00	18.80	20.80	6.75	12.31	13.3
250mm 6	250.00	252.00	0.00	0.00	14.30	15.90	7.50	10.73	14.7
250mm 9	250.00	252.00	0.00	0.00	20.90	23.10	7.50	15.20	14.7
280mm 6	280.00	282.30	0.00	0.00	16.00	17.70	8.40	13.44	11.0
280mm 9	280.00	282.30	0.00	0.00	23.40	25.90	8.40	19.08	11.0
315mm 6	315.00	317.60	0.00	0.00	18.00	19.90	9.45	17.00	12.4
315mm 9	315.00	317.60	0.00	0.00	26.30	29.10	9.45	24.12	12.4
355mm 6	355.00	357.90	0.00	0.00	20.30	22.50	10.65	21.63	13.9
355mm 9	355.00	357.90	0.00	0.00	29.60	32.70	10.65	30.58	13.9
400mm 6	400.00	403.20	0.00	0.00	22.90	25.30	12.00	27.45	15.7
400mm 9	400.00	403.20	0.00	0.00	33.30	36.80	12.00	38.77	15.7

Coil Dimensions

25mm 9	Coil Length	60	100	140	150	200	250	300	550
	Coil ID					550			
	Width					300			
	Coil Dia					650			
	Coil Weight					31.8			
32mm 6	Coil Length	60	100	140	150	200	250	300	550
	Coil ID						1000		
	Width						300		
	Coil Dia						1500		
	Coil Weight						46.5		
32mm 9	Coil Length	60	100	140	150	200	250	300	550
	Coil ID						1000		1000
	Width						300		400
	Coil Dia						1500		1710
	Coil Weight						64.0		140.8
40mm 6	Coil Length	60	100	140	150	200	250	300	550
	Coil ID				1000	1000		1000	
	Width				300	400		400	
	Coil Dia				1500	1500		1720	
	Coil Weight				42.8	57.0		85.5	
40mm 9	Coil Length	60	100	140	150	200	250	300	550
	Coil ID				1000	1000		1000	
	Width				300	400		400	
	Coil Dia				1500	1500		1720	
	Coil Weight				60.5	80.6		120.9	
50mm 6	Coil Length	60	100	140	150	200	250	300	550
	Coil ID				1300	1300			
	Width				300	400			
	Coil Dia				1900	1900			
	Coil Weight				66.2	88.2			
50mm 9	Coil Length	60	100	140	150	200	250	300	550
	Coil ID		1050		1050	1050			
	Width		300		400	400			
	Coil Dia		1550		1550	1750			
	Coil Weight		62.1		93.2	124.2			
63mm 9	Coil Length	60	100	140	150	200	250	300	550
	Coil ID			1300					
	Width			400					
	Coil Dia			1800					
	Coil Weight			137.5					
110mm 6	Coil Length	60	100	140	150	200	250	300	550
	Coil ID		2000						
	Width		450						
	Coil Dia		2880						
	Coil Weight		209.8						
110mm 9	Coil Length	60	100	140	150	200	250	300	550
	Coil ID		2000			2200			
	Width		450			770			
	Coil Dia		2880			3080			
	Coil Weight		296.3			592.6			
125mm 9	Coil Length	60	100	140	150	200	250	300	550
	Coil ID		2200						
	Width		620						
	Coil Dia		3000						
	Coil Weight		380.1						
140mm 9	Coil Length	60	100	140	150	200	250	300	550
	Coil ID		2100						
	Width		720						
	Coil Dia		3000						
	Coil Weight		427						
160mm 9	Coil Length	60	100	140	150	200	250	300	550
	Coil ID	2400							
	Width	770							
	Coil Dia	3040							
	Coil Weight	334							

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.

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