

BLACKLINE PE100 High Pressure Polyethylene Pipe

Compliance: Manufactured in accordance with AS/NZS 4130 ‘PE Pipes for Pressure Applications’ using pre-compounded materials conforming to AS/NZS 4131 ‘PE Compounds for Pressure Pipes and Fittings’. Blackline PE pressure pipes are independently certified in accordance with the test requirements of AS/NZS 4130. Standards Mark License number SMK20400.

Product Code: 3500 Series
PN16 (16 bar), PN20 (20 bar) and PN25 (25 bar) options

Description: Metric series polyethylene pressure pipe from 25mm – 110mm OD, manufactured from PE100 High Performance Polyethylene for high pressure applications. Pipe is coloured black and is available in coils including 25, 50 and 100 metres.

Joining: PN16 Blackline pipe can be joined using Plasson mechanical compression fittings complying with AS/NZS 4129. It can also be joined by butt fusion welding or electrofusion couplings although these methods are not often used in small diameter pipes. PN20 and PN25 Blackline can be joined using Blackline Ductile Iron fittings. Butt fusion welding may also be used.

Applications:

- High-pressure applications including;
- Water distribution for town, rural and irrigation projects
- Rider mains for urban water supply
- Household water connections from the main supply
- Compressed air lines

Fusion Welding Procedure: Refer to the PIPA Guidelines for butt fusion and electrofusion welding procedures – www.pipa.com.au.

Fusion Weld Testing: Tensile testing of fusion welds to be in accordance with ISO/DIS 13953.

Design & Installation: Blackline pipes should be designed and installed in accordance with the following Standards:

- **Buried Structural Design:**
AS/NZS 2566 Part 1 and Supplement ‘Buried Flexible Pipelines – Structural Design’
- **Detailed Installation and Site Pressure Testing:**
AS/NZS 2566 Part 2 ‘Installation’
AS/NZS 2033 Installation of polyethylene pipe systems

Limitations: Polyethylene pipes are not suitable for use in the following applications:

- As a conductor for earthing electrical appliances
- All fire rated applications
- Exposure to direct sunlight in service (except black pipe)
- Pressure pipes in continuous services up to 60°C internal or external temperature, where provision for pressure derating has not been made
- Without adequate support to the pipe in above ground and below ground applications
- Where working pressure and surge pressure exceeds the nominated pressure rating of the pipe
- Where incorrect depth of cover is applied.
- Without adequate support to the pipe both in above ground and below ground applications
- Without adequate thrust support
- Where depth of cover is less than:
 - 300mm where pipeline is not subject to vehicular loadings
 - 450mm where pipeline is subject to vehicular loadings not in roadways
 - 600mm where pipeline is subject to vehicular loading in sealed roadways

- 750mm where pipeline is subject to vehicular loading in unsealed roadways
- 750mm where pipeline is subject to construction equipment loadings
- Without provision for fatigue design, to accommodate dynamic stresses where appropriate (in accordance with published PIPA guidelines)
- Where working pressure plus surge/cyclic pressure exceeds the nominated pressure performance rating of the pipe

Pressure Class			PN16		PN20		PN25	
			SDR 11		SDR 9		SDR 7.4	
Nominal Size DN	Min O.D. (mm)	Max O.D. (mm)	Mean Wall (mm)	Mean I.D. (mm)	Mean Wall (mm)	Mean I.D. (mm)	Mean Wall (mm)	Mean I.D. (mm)
25	25.0	25.3	2.5	20.1				
32	32.0	32.3	3.1	25.9				
40	40.0	40.4	3.9	32.4				
50	50.0	50.5	4.9	40.4				
63	63.0	63.6	6.1	51.1	7.5	48.3	9.1	45.1
75	75.0	75.7	7.2	60.9				
90	90.0	90.9	8.7	73.5	10.7	69.0	13.0	64.4
110	110.0	111.0	10.5	89.5	13.0	84.5	15.9	78.7



Installation of Blackline™ pipe by mole plough

Blackline HP Ductile Iron Fittings: Designed specifically for use with Blackline PN20 and PN25 polyethylene pipe.

Ductile iron coupling - PN25

- 63mm
- 90mm
- 110mm



Stainless steel male threaded adaptor – PN25

- 63mm x 50mm BSP
- 90mm x 80mm BSP
- 110mm x 100mm BSP



Ductile iron transition coupling - PN25

- 63mm
- 90mm
- 110mm



Ductile iron universal flanged adaptor – PN25

- 63mm x 50mm flange – 120 – 125mm PCD
- 90mm x 80mm flange – 150 – 160mm PCD
- 110mm x 100mm flange – 175 – 191mm PCD

