

Pressure/Water/Gas Polyethylene (PE) Pipes - Series 1 to AS/NZS 4130:2018

Nominal outside diameter (DN)	Mean outside diameter		Maximum out-of-roundness	SDR 41				SDR 33				SDR 26			
				PN4 PE100 / PN3.2 PE80 *				PN4 PE80 *				PN6.3 PE100 *			
				Wall thickness		Mean inside diameter		Wall thickness		Mean inside diameter		Wall thickness		Mean inside diameter	
	Min.	Max.		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
16	16.0	16.3	1.2	-	-	-	-	-	-	-	-	-	-	-	-
20	20.0	20.3	1.2	-	-	-	-	-	-	-	-	-	-	-	-
25	25.0	25.3	1.2	-	-	-	-	-	-	-	-	-	-	-	-
32	32.0	32.3	1.3	-	-	-	-	-	-	-	-	-	-	-	-
40	40.0	40.4	1.4	-	-	-	-	-	-	-	-	-	-	-	-
50	50.0	50.5	1.4	-	-	-	-	-	-	-	-	-	-	-	-
63	63.0	63.6	1.5	-	-	-	-	-	-	-	-	2.4	2.8	57.4	58.8
75	75.0	75.7	1.6	-	-	-	-	2.3	2.7	69.6	71.1	2.9	3.3	68.4	69.9
90	90.0	90.9	1.8	-	-	-	-	2.8	3.2	83.6	85.3	3.5	4.0	82.0	83.9
110	110.0	111.0	2.2	2.7	3.1	103.8	105.6	3.4	3.9	102.2	104.2	4.3	4.9	100.2	102.4
125	125.0	126.2	2.5	3.1	3.6	117.8	120.0	3.9	4.4	116.2	118.4	4.8	5.4	114.2	116.6
140	140.0	141.3	2.8	3.5	4.0	132.0	134.3	4.3	4.9	130.2	132.7	5.4	6.1	127.8	130.5
160	160.0	161.5	3.2	4.0	4.5	151.0	153.5	4.9	5.5	149.0	151.7	6.2	7.0	146.0	149.1
180	180.0	181.7	3.6	4.4	5.0	170.0	172.9	5.5	6.2	167.6	170.7	6.9	7.7	164.6	167.9
200	200.0	201.8	4.0	4.9	5.5	189.0	192.0	6.2	7.0	186.0	189.4	7.7	8.6	182.8	186.4
225	225.0	227.1	4.5	5.5	6.2	212.6	216.1	6.9	7.7	209.6	213.3	8.6	9.6	205.8	209.9
250	250.0	252.3	5.0	6.2	7.0	236.0	239.9	7.7	8.6	232.8	236.9	9.6	10.7	228.6	233.1
280	280.0	282.6	9.8	6.9	7.7	264.6	268.8	8.6	9.6	260.8	265.4	10.7	11.9	256.2	261.2
315	315.0	317.9	11.1	7.7	8.6	297.8	302.5	9.7	10.8	293.4	298.5	12.1	13.5	288.0	293.7
355	355.0	358.2	12.5	8.7	9.7	335.6	340.8	10.9	12.1	330.8	336.4	13.6	15.1	324.8	331.0
400	400.0	403.6	14.0	9.8	10.9	378.2	381.8	12.3	13.7	372.6	379.0	15.3	17.0	366.0	373.0
450	450.0	454.1	15.6	11.0	12.2	425.6	432.1	13.8	15.3	419.4	426.5	17.2	19.1	411.8	419.7
500	500.0	504.5	17.5	12.3	13.7	472.6	479.9	15.3	17.0	466.0	473.9	19.1	21.2	457.6	466.3
560	560.0	565.0	19.6	13.7	15.2	529.6	537.7	17.2	19.1	521.8	530.7	21.4	23.7	512.6	522.3
630	630.0	635.7	22.1	15.4	17.1	595.8	604.9	19.3	21.4	587.2	597.1	24.1	26.7	576.6	587.5
710	710.0	716.4	24.9	17.4	19.3	671.4	681.6	21.8	24.1	661.8	672.8	27.2	30.1	649.8	662.0
800	800.0	807.2	28.0	19.6	21.7	756.6	768.0	24.5	27.1	745.8	758.2	30.6	33.8	732.4	746.0
900	900.0	908.1	31.5	22.0	24.3	851.4	864.1	27.6	30.5	839.0	852.9	34.4	38.0	824.0	839.3
1000	1000.0	1009.0	35.0	24.5	27.1	945.8	960.0	30.6	33.8	932.4	947.8	38.2	42.2	915.6	932.6
1200	1200.0	1210.0	42.0	29.4	32.5	1135.0	1151.2	36.7	40.5	1119.0	1136.6	45.9	50.6	1098.8	1118.2

*PN rating is not applicable to gas conveying pipes.

NOTE: In the interest of pipe serviceability and irrespective of calculated wall thickness, the minimum pipe wall thickness shall be 1.6 mm for Series 1 pipes.

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Pressure/Water/Gas PE Pipes - Series 1 to AS/NZS 4130:2018

Nominal outside diameter (DN)	Mean outside diameter		Maximum out-of-roundness	SDR 21 PN8 PE100 / PN6.3 PE80 *				SDR 17 PN10 PE100 / PN8 PE80 *				millimetres SDR 13.6 PN12.5 PE100 / PN10 PE80 *			
				Wall thickness		Mean inside diameter		Wall thickness		Mean inside diameter		Wall thickness		Mean inside diameter	
	Min.	Max.		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
	16	16.0		16.3	1.2	-	-	-	-	-	-	-	-	-	-
20	20.0	20.3	1.2	-	-	-	-	-	-	-	-	1.6	1.9	16.2	17.1
25	25.0	25.3	1.2	-	-	-	-	1.6	1.9	21.2	22.1	1.9	2.2	20.6	21.5
32	32.0	32.3	1.3	1.6	1.9	28.2	29.1	1.9	2.2	27.6	28.5	2.4	2.8	26.4	27.5
40	40.0	40.4	1.4	1.9	2.2	35.6	36.6	2.4	2.8	34.4	35.6	3.0	3.4	33.2	34.4
50	50.0	50.5	1.4	2.4	2.8	44.4	45.7	3.0	3.4	43.2	44.5	3.7	4.2	41.6	43.1
63	63.0	63.6	1.5	3.0	3.4	56.2	57.6	3.8	4.3	54.4	56.0	4.7	5.3	52.4	54.2
75	75.0	75.7	1.6	3.6	4.1	66.8	68.5	4.5	5.1	64.8	66.7	5.5	6.2	62.6	64.7
90	90.0	90.9	1.8	4.3	4.9	80.2	82.3	5.4	6.1	77.8	80.1	6.6	7.4	75.2	77.7
110	110.0	111.0	2.2	5.3	6.0	98.0	100.4	6.6	7.4	95.2	97.8	8.1	9.1	91.8	94.8
125	125.0	126.2	2.5	6.0	6.7	111.6	114.2	7.4	8.3	108.4	111.4	9.2	10.3	104.4	107.8
140	140.0	141.3	2.8	6.7	7.5	125.0	127.9	8.3	9.3	121.4	124.7	10.3	11.5	117.0	120.7
160	160.0	161.5	3.2	7.7	8.6	142.8	146.1	9.5	10.6	138.8	142.5	11.8	13.1	133.8	137.9
180	180.0	181.7	3.6	8.6	9.6	160.8	165.4	10.7	11.9	156.2	160.3	13.3	14.8	150.4	155.1
200	200.0	201.8	4.0	9.6	10.7	178.6	182.6	11.9	13.2	173.6	178.0	14.7	16.3	167.4	172.7
225	225.0	227.1	4.5	10.8	12.0	201.0	205.5	13.4	14.9	195.2	200.3	16.6	18.4	188.2	193.9
250	250.0	252.3	5.0	11.9	13.2	223.6	228.5	14.8	16.4	217.2	222.7	18.4	20.4	209.2	215.5
280	280.0	282.6	9.8	13.4	14.9	250.2	255.8	16.6	18.4	243.2	249.4	20.6	22.8	234.4	241.4
315	315.0	317.9	11.1	15.0	16.6	281.8	287.9	18.7	20.7	273.6	279.5	23.2	25.7	263.6	271.5
355	355.0	358.2	12.5	16.9	18.7	317.6	324.4	21.1	23.4	308.2	316.0	26.1	28.9	297.2	306.0
400	400.0	403.6	14.0	19.1	21.2	357.6	365.4	23.7	26.2	347.6	356.2	29.4	32.5	335.0	344.8
450	450.0	454.1	15.6	21.5	23.8	402.4	411.1	26.7	29.5	391.0	400.7	33.1	36.6	376.8	387.9
500	500.0	504.5	17.5	23.9	26.4	447.2	456.7	29.6	32.7	434.6	445.3	36.8	40.6	418.8	430.9
560	560.0	565.0	19.6	26.7	29.5	501.0	511.7	33.2	36.7	486.6	498.7	41.2	45.5	469.0	482.7
630	630.0	635.7	22.1	30.0	33.1	563.8	575.7	37.3	41.2	547.6	561.1	46.3	51.1	527.8	543.1
710	710.0	716.4	24.9	33.9	37.4	635.2	648.6	42.1	46.5	617.0	632.2	52.2	57.6	594.8	612.0
800	800.0	807.2	28.0	38.1	42.1	715.8	731.0	47.4	52.3	695.4	712.4	58.8	64.8	670.4	689.6
900	900.0	908.1	31.5	42.9	47.3	805.4	822.3	53.5	59.0	782.2	801.1	66.2	73.0	754.0	775.7
1000	1000.0	1009.0	35.0	47.7	52.6	894.8	913.6	59.3	65.4	869.2	890.4	72.5	79.9	840.2	864.0
1200	1200.0	1210.0	42.0	57.2	63.1	1073.8	1095.6	70.6	77.8	1044.4	1070.0	88.2	97.2	1005.6	1034.4

* PN rating is not applicable to gas conveying pipes.

NOTE:

In the interest of pipe serviceability and irrespective of the calculated wall thickness, the following shall apply:

- a) For fuel gas pipes ≤ DN40, the minimum / maximum wall thickness shall be 2.4 mm / 2.8 mm for pipes with SDR greater or equal to SDR17 and 3.0 mm / 3.4 mm for pipes with SDR less than SDR17.
- b) For other applications, the minimum pipe wall thickness shall be 1.6 mm for Series 1 pipes.

Drainage/sewerage plain wall PE pipes to AS/NZS 5065 – dimensions as listed above in the range of pipe sizes DN110-DN1200 of SDR33-SDR17.

Pressure/Water/Gas PE Pipes - Series 1 to AS/NZS 4130:2018

Nominal outside diameter (DN)	Mean outside diameter		Maximum out-of-roundness	SDR 11				SDR 9				SDR 7.4			
				PN16 PE100 / PN12.5 PE80 *		Mean inside diameter		Wall thickness		Mean inside diameter		Wall thickness		Mean inside diameter	
	Min.	Max.		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
16	16.0	16.3	1.2	1.6	1.9	12.2	13.1	1.8	2.1	11.8	12.7	2.2	2.6	10.8	11.9
20	20.0	20.3	1.2	1.9	2.2	15.6	16.5	2.3	2.7	14.6	15.7	2.8	3.2	13.6	14.7
25	25.0	25.3	1.2	2.3	2.7	19.6	20.7	2.8	3.2	18.6	19.7	3.5	4.0	17.0	18.3
32	32.0	32.3	1.3	2.9	3.3	25.4	26.5	3.6	4.1	23.8	25.1	4.4	5.0	22.0	23.5
40	40.0	40.4	1.4	3.7	4.2	31.6	33.0	4.5	5.1	29.8	31.4	5.5	6.2	27.6	29.4
50	50.0	50.5	1.4	4.6	5.2	39.6	41.2	5.6	6.3	37.4	39.3	6.9	7.7	34.6	36.7
63	63.0	63.6	1.5	5.8	6.5	50.0	52.0	7.1	8.0	47.0	49.4	8.6	9.6	43.8	46.4
75	75.0	75.7	1.6	6.8	7.6	59.8	62.1	8.4	9.4	56.2	58.9	10.3	11.5	52.0	55.1
90	90.0	90.9	1.8	8.2	9.2	71.6	74.5	10.1	11.3	67.4	70.7	12.3	13.7	62.6	66.3
110	110.0	111.0	2.2	10.0	11.1	87.8	91.0	12.3	13.7	82.6	86.4	15.1	16.8	76.4	80.8
125	125.0	126.2	2.5	11.4	12.7	99.6	103.4	14.0	15.5	94.0	98.2	17.1	19.0	87.0	92.0
140	140.0	141.3	2.8	12.7	14.1	111.8	115.9	15.7	17.4	105.2	109.9	19.2	21.3	97.4	102.9
160	160.0	161.5	3.2	14.6	16.2	127.6	132.3	17.9	19.8	120.4	125.7	21.9	24.2	111.6	117.7
180	180.0	181.7	3.6	16.4	18.2	143.6	148.9	20.1	22.3	135.4	141.5	24.6	27.2	125.6	132.5
200	200.0	201.8	4.0	18.2	20.2	159.6	165.4	22.4	24.8	150.4	157.0	27.3	30.2	139.6	147.2
225	225.0	227.1	4.5	20.5	22.7	179.6	186.1	25.1	27.8	169.4	176.9	30.8	34.0	157.0	165.5
250	250.0	252.3	5.0	22.7	25.1	199.8	206.9	27.9	30.8	188.4	196.5	34.2	37.8	174.4	183.9
280	280.0	282.6	9.8	25.4	28.1	223.8	231.8	31.3	34.6	210.8	220.0	38.3	42.3	195.4	206.0
315	315.0	317.9	11.1	28.6	31.6	251.8	260.7	35.2	38.9	237.2	247.5	43.0	47.4	220.2	231.9
355	355.0	358.2	12.5	32.2	35.6	283.8	293.8	39.6	43.7	267.6	279.0	48.5	53.5	248.0	261.2
400	400.0	403.6	14.0	36.3	40.1	319.8	331.0	44.7	49.3	301.4	314.2	54.6	60.2	279.6	294.4
450	450.0	454.1	15.6	40.9	45.1	359.8	372.3	50.2	55.4	339.2	353.7	61.5	67.8	314.4	331.1
500	500.0	504.5	17.5	45.4	50.1	399.8	413.7	55.8	61.5	377.0	392.9	-	-	-	-
560	560.0	565.0	19.6	50.8	56.0	448.0	463.5	62.5	68.9	422.2	438.4	-	-	-	-
630	630.0	635.7	22.1	57.2	63.1	503.8	521.3	70.3	77.5	475.0	493.2	-	-	-	-
710	710.0	716.4	24.9	64.5	71.1	567.8	587.4	79.3	87.4	535.2	557.8	-	-	-	-
800	800.0	807.2	28.0	72.5	80.0	640.0	662.0	89.3	98.4	603.2	628.6	-	-	-	-
900	900.0	908.1	31.5	81.7	90.0	720.0	744.7	-	-	-	-	-	-	-	-
1000	1000.0	1009.0	35.0	90.8	100.0	800.0	827.4	-	-	-	-	-	-	-	-

* PN rating is not applicable to gas conveying pipes.

NOTE: In the interest of pipe serviceability and irrespective of the calculated wall thickness, the following shall apply:

- a) For fuel gas pipes ≤ DN40, the minimum / maximum wall thickness shall be 2.4 mm / 2.8 mm for pipes with SDR greater or equal to SDR17 and 3.0 mm / 3.4 mm for pipes with SDR less than SDR17.
- b) For other applications, the minimum pipe wall thickness shall be 1.6 mm for Series 1 pipes.

Gas PE Pipes - Series 3 to AS/NZS 4130:2018

millimetres

Nominal inside diameter (DN)	Mean outside diameter		Maximum out-of- roundness	Wall thickness									
	Min.	Max.		SDR 11		SDR 17		SDR 21		SDR 26		SDR 32	
				Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
10	15.7	16.0	0.7	2.3	2.5	-	-	-	-	-	-	-	-
15	21.4	21.7	0.7	2.3	2.5	-	-	-	-	-	-	-	-
18	22.5	22.8	0.7	2.3 *	2.5 *	-	-	-	-	-	-	-	-
20	26.6	26.9	0.9	2.4	2.7	2.3	2.5	-	-	-	-	-	-
25	33.4	33.7	0.9	3.1	3.4	2.3	2.5	-	-	-	-	-	-
32	42.1	42.4	1.1	3.9	4.2	2.3	2.5	-	-	-	-	-	-
40	48.1	48.4	1.3	4.4	4.8	2.7	2.9	-	-	-	-	-	-
50	60.2	60.5	1.5	5.5	6.1	3.6	3.9	-	-	-	-	-	-
65	76.0	76.7	1.5	6.9	7.6	4.5	4.9	-	-	-	-	-	-
80	88.7	89.2	2.3	8.1	8.9	5.2	5.8	4.2	4.7	-	-	-	-
100	114.1	114.7	2.9	10.4	11.4	6.7	7.4	5.4	6.0	-	-	-	-
150	168.0	168.9	3.3	15.3	16.8	9.9	10.9	8.0	8.8	6.5	7.1	-	-
200	218.8	219.9	3.3	19.9	21.9	13.0	14.3	10.4	11.5	8.4	9.3	6.8	7.5

* SDR 9.9 in AS/NZS 4130:2018.

NOTES:

1. This pipe series is based on iron pipe sizes (IPS).
2. In the interest of pipe serviceability and irrespective of the calculated wall thickness, AS/NZS 4130:2018 does not provide for a wall thickness of less than 2.3 mm for Series 3 pipes.
3. SDR 9.9 and SDR 15 pipes - see AS/NZS 4130:2018.
4. Waters & Farr also manufactures the following Series 3 pipes of customary wall thickness: DN 10 pipes of minimum wall thickness 1.5 mm, and DN 15 SDR 9 pipe of minimum wall thickness 2.5 mm.

Rural LDPE pressure pipes (Nominal Bore designated) – typical dimensions

millimetres

Nominal bore (inside diameter)	Mean outside diameter		Wall thickness	
	Min.	Max.	Min.	Max.
15	16.9	17.3	2.1	2.4
20	24.9	25.4	2.9	3.3
25	31.2	31.8	2.9	3.3
32	37.5	38.1	3.1	3.5
40	43.8	44.5	3.1	3.5
50	56.5	57.2	3.1	3.5

Bosspipe Polypropylene (PP) and Polyethylene (PE) – typical dimensions

Nominal inside diameter (DN)	Type	SN	Mean inside diameter (barrel), mm	Mean outside diameter, mm		Length, m
				Barrel	Socket	
225	CivilBoss	16	220	259	272	6
225	FarmBoss	Typical: 6	224	259	272	6
300	CivilBoss	16	296	353	369	6
300	FarmBoss	Typical: 6	306	353	369	6
375	CivilBoss	16	370	442	463	6
375	FarmBoss	Typical: 6	383	442	463	6
450	CivilBoss	16	444	531	555	6
450	FarmBoss	Typical: 6	460	531	555	6