

HDPE Pipes - Jain High Density Polyethylene Pipes



Features and Specifications

- Manufactured from virgin pipe grade raw materials (PE80, PE100).
- Excellent corrosion and chemical resistance. Inert to most acidic and alkaline solutions.
- High flow characteristics.
- Light in Weight.
- Easy to handle & transport.
- Excellent flexibility combined with strength.
- Good abrasion resistance.
- Smooth inner walls minimises frictional losses.
- Safe for potable water supply.
- Manufactured as per IS-4984, ISO-4427, DIN8074, ASTM D 3035 and BS-6437 standards in PE-63, PE-80 and PE-100 grades.
- Manufactured from 20 to 1600 mm sizes at various pressure rating from 2.5 to 16 kg/cm² (35.5 to 227.5 psi).
- Upto 6" in straight lengths and coils. Higher sizes in standard and other straight lengths only.

Applications

- Lift and gravity water supply systems.

- Micro & sprinkler irrigation systems.
- Sewerage pumping and effluent disposal systems.
- Column pipes for submersible pumps.

Technical Specifications

PE Pipe as per ISO:4427:96 Material Grade PE 63

OD		PN 3.2		PN 4		PN 6		PN 6.3		PN 8		PN10		PN12.5		PN16	
		Wall Thickness		Wall Thickness		Wall Thickness		Wall Thickness		Wall Thickness		Wall Thickness		Wall Thickness		Wall Thickness	
Min.	Max.	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max.
16.0	16.3	-	-	-	-	-	-	-	-	-	-	2.3	2.8	2.3	2.8	2.3	2.8
20.0	20.3	-	-	-	-	-	-	-	-	2.3	2.8	2.3	2.8	2.3	2.8	2.8	3.3
25.0	25.3	-	-	-	-	2.3	2.8	2.3	2.8	2.3	2.8	2.3	2.8	2.8	3.3	3.5	4.1
32.0	32.3	-	-	-	-	2.3	2.8	2.3	2.8	2.4	2.9	2.9	3.4	3.6	4.2	4.4	5.1
40.0	40.4	-	-	2.3	2.8	2.3	2.8	2.4	2.9	3.0	3.5	3.7	4.3	4.5	5.2	5.5	6.4
50.0	50.5	-	-	2.3	2.8	2.9	3.4	3.0	3.5	3.7	4.3	4.6	5.3	5.6	6.5	6.9	8.0
63.0	63.6	2.3	2.8	2.5	3.0	3.6	4.2	3.8	4.4	4.7	5.5	5.8	6.7	7.1	8.2	8.6	9.9
75.0	75.7	2.3	2.8	2.9	3.4	4.3	5.0	4.5	5.2	5.6	6.5	6.8	7.9	8.4	9.7	10.3	11.9
90.0	90.9	2.8	3.3	3.5	4.1	5.1	6.0	5.4	6.3	6.7	7.8	8.2	9.5	10.1	11.7	12.3	14.2
110.0	111.0	3.4	4.0	4.2	4.9	6.3	7.3	6.6	7.6	8.1	9.4	10.0	11.5	12.3	14.2	15.1	17.4
125.0	126.2	3.9	4.5	4.8	5.6	7.1	8.2	7.4	8.6	9.2	10.6	11.4	13.2	14	16.1	17.1	20.5
140.0	141.3	4.3	5.0	5.4	6.3	8.0	9.2	8.3	9.6	10.3	11.9	12.7	14.7	15.7	18.4	19.2	23.0
160.0	161.5	4.9	5.7	6.2	7.2	9.1	10.5	9.5	11.0	11.8	13.6	14.6	16.8	17.9	21.2	21.9	26.2
180.0	181.7	5.5	6.4	6.9	8.0	10.2	11.8	10.7	12.4	13.3	15.3	16.4	19.6	20.1	24.1	24.6	29.5
200.0	201.8	6.2	7.2	7.7	8.9	11.4	13.2	11.9	13.7	14.7	17.0	18.2	21.8	22.4	26.8	27.4	32.8
225.0	227.1	6.9	8.0	8.6	9.9	12.8	14.8	13.4	15.5	16.6	19.9	20.5	24.5	25.2	30.2	30.8	36.9
250.0	252.3	7.7	8.9	9.6	11.1	14.2	16.4	14.8	17.1	18.4	22.0	22.7	27.2	27.9	33.4	34.2	41.0
280.0	282.6	8.6	10.0	10.7	12.4	15.9	18.3	16.6	19.9	20.6	24.7	25.4	30.4	31.3	37.5	38.3	45.9
315.0	317.9	9.7	11.2	12.1	14.0	17.9	21.4	18.7	22.4	23.2	27.8	28.6	34.3	35.2	42.2	43.1	51.7
355.0	358.2	10.9	12.6	13.6	15.7	20.1	24.2	21.1	25.3	26.1	31.3	32.2	38.6	39.7	47.6	48.5	58.1

400.0	403.6	12.3	14.2	15.3	17.6	22.7	27.3	23.7	28.4	29.4	35.2	36.3	43.5	44.7	53.6	54.7	64.6
450	454.1	13.8	15.9	17.2	20.6	25.5	30.6	26.7	32.0	33.1	39.7	40.9	49.0	50.3	60.2	61.5	71.4
500	504.5	15.3	17.6	19.1	22.9	28.3	33.9	29.7	35.6	36.8	44.1	45.4	54.4	55.8	65.7	-	-
560	565.0	17.2	20.6	21.4	25.6	31.7	38.0	33.2	39.8	41.2	49.4	50.8	60.7	-	-	-	-
630	635.7	19.3	23.1	24.1	28.9	35.7	42.8	37.4	44.8	46.3	55.5	57.2	67.1	-	-	-	-
710	716.4	21.8	26.1	27.2	32.6	40.2	48.2	42.1	50.5	52.2	62.1	-	-	-	-	-	-
800	807.2	24.5	29.3	30.6	36.7	45.3	54.3	47.4	56.8	58.8	68.7	-	-	-	-	-	-
900	908.1	27.6	33.1	34.4	41.2	51.0	60.9	53.3	63.2	-	-	-	-	-	-	-	-
1000	1009	30.6	36.7	38.2	45.8	56.6	66.5	59.3	69.2	-	-	-	-	-	-	-	-
1200	1210	36.7	44.0	45.9	55.0	-	-	-	-	-	-	-	-	-	-	-	-
1400	1410	42.9	51.3	53.5	63.4	-	-	-	-	-	-	-	-	-	-	-	-
1600	1610	49.0	58.7	61.2	71.1	-	-	-	-	-	-	-	-	-	-	-	-

Note : Pressure Rating in : Kg/cm²

Material Grade PE 80

OD	PN 6		PN 8		PN 10		PN 12.5		PN 16		
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
16.0	16.3	-	-	-	-	-	-	-	-	2.3	2.8
20.0	20.3	-	-	-	-	-	-	-	-	2.3	2.8
25.0	25.3	-	-	-	-	-	-	2.3	2.8	2.8	3.3
32.0	32.3	-	-	-	-	-	-	3.0	3.5	3.6	4.2
40.0	40.4	-	-	-	-	-	-	3.7	4.3	4.5	5.2
50.0	50.5	-	-	-	-	-	-	4.6	5.3	5.6	6.5
63.0	63.6	-	-	-	-	4.7	5.5	5.8	6.7	7.1	8.2
75.0	75.7	-	-	4.5	5.2	5.6	6.5	6.8	7.9	8.4	9.7
90.0	90.9	4.3	5.0	5.4	6.3	6.7	7.8	8.2	9.5	10.1	11.7
110.0	111.0	5.3	6.1	6.6	7.6	8.1	9.4	10.0	11.5	12.3	14.2
125.0	126.2	6.0	6.9	7.4	8.6	9.2	10.6	11.4	13.2	14.0	16.1
140.0	141.3	6.7	7.9	8.3	9.6	10.3	11.9	12.7	14.7	15.7	18.1
160.0	161.5	7.7	8.9	9.5	11.0	11.8	13.6	14.6	16.8	17.9	21.4
180.0	181.7	8.6	9.9	10.7	12.4	13.3	15.3	16.4	19.6	20.1	24.1
200.0	201.8	9.6	11.1	11.9	13.7	14.7	17.0	18.2	21.8	22.4	26.8
225.0	227.1	10.8	12.5	13.4	15.5	16.6	19.8	20.5	24.5	25.2	30.2
250.0	252.3	11.9	13.7	14.8	17.1	18.4	22.0	22.7	27.2	27.9	33.4
280.0	282.6	13.4	15.5	16.6	19.9	20.6	24.7	25.4	30.4	31.3	37.5
315.0	317.9	15.0	17.3	18.7	22.4	23.2	27.8	28.6	34.3	35.2	42.2

355.0	358.2	16.9	20.2	21.1	25.3	26.1	31.3	32.2	38.6	39.7	47.6
400.0	403.6	19.9	22.9	23.7	28.4	29.4	35.2	36.3	43.5	44.7	53.6
450	454.1	21.5	25.7	26.7	32.0	33.1	39.7	40.9	49.0	50.3	60.2
500	504.5	23.9	28.6	29.7	35.6	36.8	44.1	45.4	53.4	55.8	65.7
560	565.0	26.7	32.0	33.2	39.8	41.2	49.4	50.8	60.7	-	-
630	635.7	30.0	35.9	37.4	44.8	46.3	55.5	57.2	67.1	-	-
710	716.4	33.9	40.6	42.1	50.5	52.2	62.1	-	-	-	-
800	807.2	38.1	45.7	47.4	56.8	58.8	68.7	-	-	-	-
900	908.1	42.9	51.4	53.3	63.2	-	-	-	-	-	-
1000	1009	47.7	57.2	59.3	69.2	-	-	-	-	-	-
1200	1210	57.2	67.1	-	-	-	-	-	-	-	-
1400	1410	-	-	-	-	-	-	-	-	-	-
1600	1610	-	-	-	-	-	-	-	-	-	-

Note : Pressure Rating in : Kg/cm²

Material Grade PE 100

OD		PN 10		PN 12.5		PN 16	
		Wall Thickness		Wall Thickness		Wall Thickness	
Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
32.0	32.3	-	-	-	-	3.0	3.5
40.0	40.4	-	-	-	-	3.7	4.3
50.0	50.5	-	-	-	-	4.6	5.3
63.0	63.6	-	-	4.7	5.5	5.8	6.7
75.0	75.7	4.5	5.2	5.6	6.5	6.8	7.9
90.0	90.9	5.4	6.3	6.7	7.8	8.2	9.5
110.0	111.0	6.6	7.6	8.1	9.4	10.0	11.5
125.0	126.2	7.4	8.6	9.2	10.6	11.4	13.2
140.0	141.3	8.3	9.6	10.3	11.9	12.7	14.7
160.0	161.5	9.5	11.0	11.8	13.6	14.6	16.8
180.0	181.7	10.7	12.4	13.9	15.3	16.4	19.6
200.0	201.8	11.9	13.7	14.7	17.0	18.2	21.8
225.0	227.1	13.4	15.5	16.6	19.9	20.5	24.5
250.0	252.3	14.8	17.1	18.4	22.0	22.7	27.2
280.0	282.6	16.6	19.9	20.6	24.7	25.4	30.4
315.0	317.9	18.7	22.4	23.2	27.8	28.6	34.3
355.0	358.2	21.1	25.3	26.1	31.3	32.2	38.6
400.0	403.6	23.7	28.4	29.4	35.2	36.3	43.5
450.0	454.1	26.7	32.0	33.1	39.7	40.9	49.0
500.0	504.5	29.7	35.6	36.8	44.1	45.4	54.4
560.0	565.0	33.2	39.8	41.2	49.4	50.8	60.7
630.0	635.7	37.4	44.8	46.2	55.4	57.2	67.1
710.0	716.4	42.1	50.5	52.2	62.1	-	-
800.0	807.2	47.4	56.8	58.8	68.7	-	-
900.0	908.1	53.3	63.2	-	-	-	-

Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
20.0	20.3	-	-	-	-	-	-	2.3	2.8	2.8	3.3
25.0	25.3	-	-	-	-	2.3	2.8	2.8	3.3	3.5	4.1
32.0	32.3	-	-	2.4	2.9	3.0	3.5	3.6	4.2	4.5	5.2
40.0	40.4	2.3	2.8	3.0	3.5	3.7	4.3	4.5	5.2	5.6	6.4
50.0	50.5	2.9	3.4	3.8	4.4	4.6	5.3	5.6	6.4	6.9	7.8
63.0	63.6	3.6	4.2	4.7	5.4	5.8	6.6	7.0	7.9	8.7	9.8
75.0	75.7	4.3	5.0	5.6	6.4	6.9	7.8	8.4	9.5	10.4	11.7
90.0	90.9	5.1	5.9	6.7	7.6	8.2	9.3	10.0	11.2	12.5	14.0
110.0	111.0	6.3	7.2	8.2	9.3	10.0	11.2	12.3	13.8	15.2	17.0
125.0	126.2	7.1	8.1	9.3	10.5	11.4	12.8	13.9	15.5	17.3	19.3
140.0	141.3	8.0	9.0	10.4	11.7	12.8	14.3	15.6	17.4	19.4	21.6
160.0	161.5	9.1	10.3	11.9	13.3	14.6	16.3	17.8	19.8	22.1	24.6
180.0	181.7	10.2	11.5	13.4	15.0	16.4	18.3	20.0	22.2	24.9	27.6
200.0	201.8	11.4	12.8	14.9	16.6	18.2	20.3	22.3	24.8	27.6	30.6
225.0	227.1	12.8	14.3	16.7	18.6	20.5	22.8	25.0	27.7	31.1	34.5
250.0	252.3	14.2	15.9	18.6	20.7	22.8	25.3	27.8	30.8	34.5	38.2
280.0	282.6	15.9	17.7	20.8	23.1	25.5	28.3	31.2	34.6	38.7	42.8
315.0	317.9	17.9	19.9	23.4	26.0	28.7	31.8	35.0	38.7	43.5	48.1
355.0	358.2	20.1	22.4	26.3	29.2	32.3	35.8	39.5	43.7	49.0	54.1
400.0	403.6	22.7	26.4	29.7	34.4	36.4	42.1	44.5	51.4	55.2	63.7
450.0	454.1	25.5	29.6	33.4	38.7	41.0	47.7	50.0	57.7	-	-
500.0	504.5	28.4	32.9	37.1	42.9	45.5	52.6	55.6	64.2	-	-
560.0	565.0	31.7	36.7	41.5	48.0	51.0	58.9	-	-	-	-
630.0	635.7	35.7	41.3	46.7	54.0	57.3	66.1	-	-	-	-
710.0	716.4	40.2	46.5	52.6	60.7	-	-	-	-	-	-
800.0	807.2	45.3	52.3	-	-	-	-	-	-	-	-
900.0	908.1	51.0	58.9	-	-	-	-	-	-	-	-
1000.0	1009.0	56.7	65.5	-	-	-	-	-	-	-	-

Note : Pressure Rating in : Kg/cm²

Material Grade PE 100

OD		All dimension are in mm									
		PN 6		PN 8		PN 10		PN 12.5		PN 16	
Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
20.0	20.3	-	-	-	-	-	-	-	-	2.3	2.8
25.0	25.3	-	-	-	-	-	-	2.3	2.8	2.9	3.4
32.0	32.3	-	-	-	-	2.4	2.9	2.9	3.4	3.7	4.3
40.0	40.4	-	-	2.4	2.9	3.0	3.5	3.7	4.3	4.6	5.3
50.0	50.5	2.3	2.8	3.0	3.5	3.7	4.3	4.6	5.3	5.7	6.5
63.0	63.6	2.9	3.4	3.8	4.4	4.7	5.4	5.7	6.5	7.1	8.1
75.0	75.7	3.5	4.1	4.5	5.2	5.6	6.4	6.8	7.7	8.5	9.6
90.0	90.9	4.1	4.8	5.4	6.2	6.7	7.6	8.2	9.3	10.2	11.5

14	140	27	30	34	38	42	47	53	59	63	70	66	73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
00	8.5	.4	.4	.4	.1	.9	.4	.5	.1	.7	.3	.7	.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	160	31	34	39	43	49	48	61	67	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
00	8.5	.3	.7	.2	.4	.0	.0	.2	.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note : Pressure Rating in : Kg/cm²

PE Pipe as per ASTM D 3035 (PE 3408)

Nom. Dia.	Outside Dia.	Minimum Wall Thickness in mm											
		DR32.5	DR26	DR21	DR17	DR15.5	DR13.5	DR11	DR9.3	DR9	DR7		
½"	21	21.34	1.57	1.57	1.57	1.57	1.57	1.57	1.93	2.29	2.36	3.05	
¾"	27	26.70	1.57	1.57	1.57	1.57	1.73	1.98	2.41	2.87	2.97	3.81	
1"	33	33.40	1.57	1.57	1.60	1.96	2.13	2.46	3.05	3.58	3.71	4.78	
1¼"	42	42.20	1.57	1.63	2.01	2.49	2.72	3.12	3.84	4.52	4.67	6.02	
1½"	48	48.30	1.57	1.85	2.29	2.84	3.12	3.58	4.39	5.18	5.36	6.88	
2"	60	60.30	1.85	2.31	2.87	3.56	3.89	4.47	5.49	6.48	6.71	8.61	
3"	89	88.90	2.74	3.43	4.24	5.23	5.74	6.58	8.08	9.55	9.88	12.70	
4"	114	114.30	3.51	4.39	5.44	6.73	7.37	8.46	10.39	12.29	12.70	16.33	
5"	141	141.30	4.34	5.44	6.73	8.31	9.12	10.46	12.85	15.19	15.70	20.19	
6"	168	168.28	5.18	6.48	8.00	9.91	10.85	12.47	15.29	18.08	18.69	24.03	
8"	219	219.08	6.73	8.43	10.44	12.88	14.12	16.23	19.91	23.55	24.33	31.29	
10"	273	273.05	8.41	10.49	13.00	16.05	17.63	20.22	24.82	29.36	30.33	39.01	
12"	324	323.85	9.96	12.45	15.42	19.05	20.90	23.98	29.44	34.82	35.99	46.25	
14"	357	355.60	10.95	13.67	16.94	20.93	22.94	26.34	32.33	38.23	39.52	50.80	
16"	408	406.40	12.50	15.62	19.35	23.90	26.21	30.10	36.96	43.69	45.16	58.06	
18"	459	457.20	14.07	17.58	21.77	26.90	29.49	33.86	41.55	49.15	50.80	65.30	
20"	510	508.00	15.62	19.53	24.18	29.87	32.77	37.62	46.18	54.64	56.44	72.57	
22"	561	558.80	16.94	21.49	26.62	32.87	36.04	41.40	50.80	60.10	62.08	79.83	
24"	612	609.60	18.75	23.44	29.03	35.86	39.32	45.16	55.42	65.56	67.74	87.10	

Dimensions

Dimensions of HDPE Sprinkler Pipes of Material Grades PE63 IS:14151-1994

Nominal Dia	Outside Dia	Nominal Tolerance on Outside Dia.	Ovality mm	Class 1 (0.25 MPa)		Class 2 (0.32 MPa)		Class 3 (0.4 MPa)		Class 4 (0.6 MPa)	
				Min	Max	Min	Max	Min	Max	Min	Max
40	40.0	+0.4	1.4	-	-	-	-	-	-	2.3	2.8
50	50.0	+0.5	1.4	-	-	-	-	2.0	2.4	2.9	3.4
63	63.0	+0.6	1.5	-	-	2.0	2.4	2.5	2.9	3.8	4.4
75	75.0	+0.7	1.6	2.0	2.4	2.5	2.9	3.0	3.4	4.5	5.2
90	90.0	+0.8	1.8	2.2	2.6	2.9	3.4	3.5	4.1	5.3	6.1
110	110.0	+1.0	2.2	2.7	3.2	3.4	3.9	4.2	4.8	6.5	7.4
125	125.0	+1.2	2.5	3.1	3.6	3.8	4.5	4.8	5.5	7.4	8.3
140	140.0	+1.3	2.8	3.5	4.1	4.3	5.0	5.4	6.1	8.3	9.3

160	160.0	+1.5	3.2	3.9	4.5	4.9	5.6	6.2	7.0	9.4	10.6
180	180.0	+1.7	3.6	4.4	5.0	5.5	6.3	6.9	7.8	10.6	11.9
200	200.0	+1.8	4.0	4.9	5.6	6.1	7.0	7.7	8.7	11.8	13.2

Designation of Material

Designation of Material	MRS at 50 years and 20 °C MPa	Maximum allowable hydrostatic design stress. MPass
PE100	10	8.0
PE80		