

Technical Specification

IS-4985

Working Pressure, Mpa.

Nominal Outside Diameter/ Nominal ISI (ze)	Mean Outside Diameter		Outside Diameter At Any Point		Class - 1 (0.25)		Class - 2 (0.40)		Class - 3 (0.60)		Class - 4 (0.80)		Class - 5 (1.00)		Class - 6 (1.25)	
	Min	Max	Min	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
20	20.0	20.3	19.5	20.5										1.5	1.8	1.8
25	25.0	25.0	24.5	25.5								1.6	1.2	1.6	1.8	2.1
32	32.0	32.3	31.5	32.5								1.9	1.5	1.9	2.2	2.7
40	40.0	40.3	39.5	40.5					1.8	1.4	1.8	2.2	1.8	2.2	2.7	3.3
50	50.0	50.3	49.4	50.6					2.1	1.7	2.1	2.8	2.3	2.8	3.3	4.0
63	63.0	63.3	62.2	63.8	1.9	1.5	1.9	3.7	2.2	2.7	3.3	2.8	3.3	4.1	5.0	5.0
75	75.0	75.3	74.1	75.9	2.2	1.8	2.2	3.1	2.6	3.1	4.0	3.4	4.0	4.9	5.9	5.9
90	90.0	90.3	88.9	91.1	2.6	2.1	2.6	3.7	3.1	3.7	4.6	4.0	4.6	5.7	7.0	7.1
110	110.0	110.4	108.6	111.4	3.0	2.5	3.0	4.3	3.7	4.3	5.6	4.9	5.6	7.0	8.5	8.7
125	125.0	125.4	123.5	126.5	3.4	2.9	3.4	5.0	4.3	5.0	6.4	5.6	6.4	7.8	9.6	9.8
140	140.0	140.5	138.3	141.7	3.8	3.2	3.8	5.5	4.8	5.5	7.2	6.3	7.3	8.7	10.7	11.0
160	160.0	160.5	158.0	162.0	4.3	3.7	4.3	6.3	5.4	6.2	8.2	7.2	8.3	9.9	12.2	12.6
180	180.0	180.6	177.8	182.2	4.9	4.2	4.9	7.0	6.1	7.1	9.0	8.0	9.2	11.1	14.1	14.1
200	200.0	200.6	197.6	202.4	5.3	4.6	5.3	7.7	6.8	7.9	10.0	8.9	10.3	12.3	15.7	15.7
225	225.0	225.7	222.3	227.7	6.0	5.2	6.0	8.6	7.6	8.8	11.2	10.0	11.5	13.9	17.6	17.6
250	250.0	250.8	247.0	253.0	6.5	5.7	6.5	9.6	8.5	9.8	12.4	11.2	12.9	15.4	19.6	19.6
280	280.0	280.9	276.6	283.4	7.3	6.4	7.4	10.7	9.5	11.0	14.0	12.5	14.4	17.2	21.9	21.9
315	315.0	316.0	311.2	318.8	8.2	7.2	8.3	12.0	10.7	12.4	15.6	14.0	16.1	19.3	24.7	24.7
355	355.0	356.1	350.7	359.3	9.2	8.1	9.4	13.4	12.0	13.8	17.6	15.8	18.2	21.8	27.8	27.8
400	400.0	401.2	395.2	404.8	10.3	9.1	10.5	15.1	13.5	15.6	19.8	17.8	20.5	24.4	31.3	31.3
450	450.0	451.4	444.6	455.4	11.6	10.3	11.9	17.0	15.2	17.5	22.2	20.0	23.0	27.5	35.1	35.1
500	500.0	501.5	494.0	506.0	12.8	11.4	13.2	18.8	16.9	19.5	24.8	22.3	25.7	30.5	39.0	39.0
560	560.0	561.7	553.2	566.8	14.3	12.8	14.8	21.0	18.9	21.8	27.6	24.9	28.7	34.1	43.7	43.7
630	630.0	631.9	622.4	637.6	16.1	14.4	16.6	23.7	21.6	24.5	31.0	28.0	32.2	38.4	49.2	49.2

1) The table based on metric series of pipe dimension given in ISO 160/1 in respect of pipe dimension and ISO DIS 4422.

2) The wall thickness of pipes is based on a safe working stress of 8.6 Mpa at 27 degreeC and working pressure gets reduce at sustained higher temperatures. Occasional rise in temperature as in summer season with concurrent corresponding reduction in temperature during nights has no deleterious effect on the life working pressure of the pipes considering the total of pipes.

For class 1, 2 and 3 of all sizes, this requirement need not to be satisfied at the ratio of minimum wall thickness to nominal outside diameter does not exceed 0.035 in these cases.