

Standard Pipe Schedule 40 - ASTM A53 Grades A and B

NPS Designator	DN Designator	Outside Diameter		Inside Diameter		Wall Thickness		Nominal Weight (Mass) per unit Length			
		(Inches)	(mm)	(Inches)	(mm)	(Inches)	(mm)	Plain End (lb/ft)	Plain End (kg/m)	Threads & Couplings (lb/ft)	Threads & Couplings (kg/m)
1/8"	6	0.405	10.3	0.269	6.8	0.068	1.73	0.24	0.37	0.25	0.37
1/4"	8	0.540	13.7	0.364	9.2	0.088	2.24	0.43	0.63	0.43	0.63
3/8"	10	0.675	17.1	0.493	12.5	0.091	2.31	0.57	0.84	0.57	0.84
1/2"	15	0.840	21.3	0.622	15.8	0.109	2.77	0.85	1.27	0.86	1.27
3/4"	20	1.050	26.7	0.824	20.9	0.113	2.87	1.13	1.69	1.14	1.69
1"	25	1.315	33.4	1.049	26.6	0.133	3.38	1.68	2.50	1.69	2.50
1-1/4"	32	1.660	42.2	1.380	35.1	0.140	3.56	2.27	3.39	2.28	3.40
1-1/2"	40	1.900	48.3	1.610	40.9	0.145	3.68	2.72	4.05	2.74	4.04
2"	50	2.375	60.3	2.067	52.5	0.154	3.91	3.66	5.44	3.68	5.46
2-1/2"	65	2.875	73.0	2.469	62.7	0.203	5.16	5.80	8.63	5.85	8.67
3"	80	3.500	88.9	3.068	77.9	0.216	5.49	7.58	11.29	7.68	11.35
3-1/2"	90	4.000	101.6	3.548	90.1	0.226	5.74	9.12	13.57	9.27	13.71
4"	100	4.500	114.3	4.026	102.3	0.237	6.02	10.8	16.07	10.92	16.23
5"	125	5.563	141.3	5.047	158.2	0.258	6.55	14.63	21.77	14.90	22.07
6"	150	6.625	168.3	6.065	154.1	0.280	7.11	18.99	28.26	19.34	28.58
8"	200	8.625	219.1	7.981	202.7	0.322	8.18	28.58	42.55	29.35	43.73
10"	250	10.750	273.0	10.020	254.5	0.365	9.27	40.52	60.29	41.49	63.36
12"	300	12.750	323.8	12.000	304.8	0.375	9.52	49.61	73.78	51.28	76.21

Extra Heavy Pipe Schedule 80 - ASTM A53 Type A

NPS Designator	DN Designator	Outside Diameter		Inside Diameter		Wall Thickness		Nominal Weight (Mass) per unit Length			
		(Inches)	(mm)	(Inches)	(mm)	(Inches)	(mm)	Plain End (lb/ft)	Plain End (kg/m)	Threads & Couplings (lb/ft)	Threads & Couplings (kg/m)
1/8"	6	0.405	10.3	0.215	5.5	0.095	2.41	0.31	0.47	0.32	0.46
1/4"	8	0.540	13.7	0.302	7.7	0.119	3.02	0.54	0.80	0.54	0.80
3/8"	10	0.675	17.1	0.423	10.7	0.126	3.20	0.74	1.10	0.74	1.10
1/2"	15	0.840	21.3	0.549	13.9	0.147	3.73	1.09	1.62	1.09	1.62
3/4"	20	1.050	26.7	0.742	18.8	0.154	3.91	1.48	2.20	1.48	2.21
1"	25	1.315	33.4	0.957	24.3	0.179	4.55	2.17	3.24	2.19	3.25
1-1/4"	32	1.660	42.2	1.278	32.5	0.191	4.85	3.00	4.47	3.03	4.49
1-1/2"	40	1.900	48.3	1.500	38.1	0.200	5.08	3.63	5.41	3.65	5.39
2"	50	2.375	60.3	1.939	49.3	0.218	5.54	5.03	7.48	5.08	7.55
2-1/2"	65	2.875	73.0	2.323	59.0	0.276	7.01	7.67	11.41	7.75	11.52
3"	80	3.500	88.9	2.900	73.7	0.300	7.62	10.26	15.27	10.35	15.39
3-1/2"	90	4.000	101.6	3.364	85.4	0.318	8.08	12.52	18.63	12.67	18.82
4"	100	4.500	114.3	3.826	97.2	0.337	8.56	15.00	22.32	15.20	22.60
5"	125	5.563	141.3	4.813	122.3	0.375	9.52	20.80	30.94	21.04	31.42
6"	150	6.625	168.3	5.761	146.3	0.432	10.97	28.60	42.56	28.88	43.05
8"	200	8.625	219.1	7.625	193.7	0.500	12.70	43.43	64.64	44.00	65.41

Permissible Variations - ASTM A53 Grades A and B Pipe

Permissible Variations for ASTM A53 Grades A and B Pipe			
	O.D.	Over	Under
Outside Diameter	NPS 1/8 to 1-1/2 DN 6 to 40	1/64" (0.4mm)	1/64" (0.4mm)
	NPS 2 and up DN 50 and up	1%	1%
Wall Thickness at Any Point		-----	12.50%
Weight		10%	10%

Mechanical Properties

Grade A: Yield 30,000 (205 Mpa) psi minimum Tensile: 48,000 psi (330 Mpa) minimum

Grade B: Yield 35,000 (240 Mpa) psi minimum Tensile: 60,000 psi (415 Mpa) minimum