

PVC Class 200 IPS Plastic Pipe

(1120, 1220) SDR 21 C=150

psi Loss per 100 Feet of Pipe (psi/100 ft.)

Sizes 3/4" through 6" Flow 1 through 600 gpm

Nominal Size	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	6"	
Pipe OD	1.050	1.315	1.660	1.900	2.375	2.875	3.500	4.500	6.625	
Avg. ID	0.91	1.169	1.482	1.7	2.129	2.581	3.146	4.046	5.955	
Avg. Wall	0.070	0.073	0.089	0.100	0.123	0.147	0.177	0.227	0.335	
Tolerance	0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.026	0.038	
Min. Wall	0.060	0.063	0.079	0.090	0.113	0.137	0.167	0.214	0.316	
Flow (gpm)	Velocity (ft/s)	Loss (psi)	Velocity (ft/s)	Loss (psi)	Velocity (ft/s)	Loss (psi)	Velocity (ft/s)	Loss (psi)	Velocity (ft/s)	Loss (psi)
1	0.49	0.07	0.30	0.02	0.19	0.01	0.14	0.00	0.09	0.00
2	0.99	0.24	0.60	0.07	0.37	0.02	0.28	0.01	0.18	0.00
3	1.48	0.52	0.90	0.15	0.56	0.05	0.42	0.02	0.27	0.01
4	1.97	0.88	1.19	0.26	0.74	0.08	0.56	0.04	0.36	0.01
5	2.46	1.33	1.49	0.39	0.93	0.12	0.71	0.06	0.45	0.02
6	2.96	1.86	1.79	0.55	1.11	0.17	0.85	0.09	0.54	0.03
7	3.45	2.47	2.09	0.73	1.30	0.23	0.99	0.12	0.63	0.04
8	3.94	3.17	2.39	0.94	1.49	0.30	1.13	0.15	0.72	0.05
9	4.43	3.94	2.69	1.17	1.67	0.37	1.27	0.19	0.81	0.06
10	4.93	4.79	2.99	1.42	1.86	0.45	1.41	0.23	0.90	0.08
11	5.42	5.72	3.28	1.69	2.04	0.53	1.55	0.27	0.99	0.09
12	5.91	6.71	3.58	1.98	2.23	0.63	1.69	0.32	1.08	0.11
14	6.90	8.93	4.18	2.64	2.60	0.83	1.98	0.43	1.26	0.14
16	7.88	11.44	4.78	3.38	2.97	1.07	2.26	0.55	1.44	0.18
18	8.87	14.23	5.37	4.21	3.34	1.33	2.54	0.68	1.62	0.23
20	9.85	17.29	5.97	5.11	3.72	1.61	2.82	0.83	1.80	0.28
22	10.84	20.63	6.57	6.10	4.09	1.92	3.11	0.99	1.98	0.33
24	11.82	24.24	7.17	7.17	4.46	2.26	3.39	1.16	2.16	0.39
26	12.81	28.11	7.76	8.31	4.83	2.62	3.67	1.34	2.34	0.45
28	13.80	32.25	8.36	9.53	5.20	3.01	3.95	1.54	2.52	0.52
30	14.78	36.64	8.96	10.83	5.57	3.41	4.24	1.75	2.70	0.59
35		10.45	14.41	6.50	4.54	4.94	2.33	3.15	0.78	2.14
40		11.94	18.45	7.43	5.82	5.65	2.98	3.60	1.00	2.45
45		13.44	22.95	8.36	7.24	6.35	3.71	4.05	1.24	2.76
50		14.93	27.90	9.29	8.79	7.06	4.51	4.50	1.51	3.06
55				10.22	10.49	7.76	5.38	4.95	1.80	3.37
60				11.15	12.33	8.47	6.32	5.40	2.11	3.67
65				12.07	14.30	9.18	7.33	5.85	2.45	3.98
70				13.00	16.40	9.88	8.41	6.30	2.81	4.29
75				13.93	18.63	10.59	9.56	6.75	3.20	4.59
80				14.86	21.00	11.29	10.77	7.20	3.60	4.90
85						12.00	12.05	7.65	4.03	5.21
90						12.71	13.40	8.10	4.48	5.51
95						13.41	14.81	8.55	4.95	5.82
100						14.12	16.28	9.00	5.45	6.12
110								9.90	6.50	6.74
120								10.80	7.63	7.35
130								11.70	8.85	7.96
140								12.60	10.16	8.57
150								13.50	11.54	9.19
160								14.40	13.01	9.80
170								10.41	5.70	7.01
180								11.02	6.34	7.42
190								11.64	7.01	7.83
200								12.25	7.71	8.24
225								13.78	9.58	9.28
250								15.31	11.65	10.31
275										11.34
300										12.37
325										13.40
350										14.43
375										9.35
400										9.97
425										10.59
450										11.22
475										11.84
500										12.46
550										13.71
600										14.95

Note: Dark shaded area of chart indicates velocities over 5' per second. Use with caution

The velocity values were derived using the following equation $V = \frac{0.408 \times Q_{gpm}}{d^2}$

Table are based upon the following Hazen-Williams equation: $H_f = 0.2083 \times \left(\frac{100}{C}\right)^{1.852} \times \frac{Q^{1.852}}{D^{4.8655}}$ for change in psi per foot of elevation. Pressure loss for uphill elevation and pressure gain for downhill elevation changes.