

Pipe & Hangers Technical Information

Dimensions & Pressure Ratings

PVC & CPVC pipe is produced in several different outside diameters, sizes and dimensions for different applications. Different classifications based on outside diameter are not interchangeable, but can often be connected with specialty adapter fittings.

Basic Pipe Sizing Classifications Based on Outside Diameter

PVC PIPE

Schedule 40

Nom. Pipe Size (in)	O.D.	Average I.D.	Min. Wall	Nominal Wt./Ft.	Maximum W.P. PSI*
1/8	0.405	0.249	0.068	0.051	810
1/4	0.540	0.344	0.088	0.086	780
3/8	0.675	0.473	0.091	0.115	620
1/2	0.840	0.602	0.109	0.170	600
3/4	1.050	0.804	0.113	0.226	480
1	1.315	1.029	0.133	0.333	450
1-1/4	1.660	1.360	0.140	0.450	370
1-1/2	1.900	1.590	0.145	0.537	330
2	2.375	2.047	0.154	0.720	280
2-1/2	2.875	2.445	0.203	1.136	300
3	3.500	3.042	0.216	1.488	260
3-1/2	4.000	3.521	0.226	1.789	240
4	4.500	3.998	0.237	2.118	220
5	5.563	5.016	0.258	2.874	190
6	6.625	6.031	0.280	3.733	180
8	8.625	7.942	0.322	5.619	160
10	10.750	9.976	0.365	7.966	140
12	12.750	11.889	0.406	10.534	130
14	14.000	13.073	0.437	12.462	130
16	16.000	14.940	0.500	16.286	130
18	18.000	16.809	0.562	20.587	130
20	20.000	18.743	0.593	24.183	120
24	24.000	22.544	0.687	33.652	120

Schedule 80

Nom. Pipe Size (in)	O.D.	Average I.D.	Min. Wall	Nominal Wt./Ft.	Maximum W.P. PSI*
1/8	.405	.195	0.095	0.063	1230
1/4	.540	.282	0.119	0.105	1130
3/8	.675	.403	0.126	0.146	920
1/2	.840	.526	0.147	0.213	850
3/4	1.050	.722	0.154	0.289	690
1	1.315	.936	0.179	0.424	630
1-1/4	1.660	1.255	0.191	0.586	520
1-1/2	1.900	1.476	0.200	0.711	470
2	2.375	1.913	0.218	0.984	400
2-1/2	2.875	2.290	0.276	1.500	420
3	3.500	2.864	0.300	2.010	370
3-1/2	4.000	3.326	0.318	2.452	350
4	4.500	3.786	0.337	2.938	320
5	5.563	4.768	0.375	4.078	290
6	6.625	5.709	0.432	5.610	280
8	8.625	7.565	0.500	8.522	250
10	10.750	9.493	0.593	12.635	230
12	12.750	11.294	0.687	17.384	230
14	14.000	12.410	0.750	20.852	220
16	16.000	14.213	0.843	26.810	220
18	18.000	16.014	0.937	33.544	220
20	20.000	17.814	1.031	41.047	220
24	24.000	21.418	1.218	58.233	210

Schedule 120

Nom. Pipe Size (in)	O.D.	Average I.D.	Minimum Wall	Nominal Wt./Ft.	Maximum W.P. PSI*
1/2	.840	.480	0.170	0.236	1010
3/4	1.050	.690	0.170	0.311	770
1	1.315	.891	0.200	0.464	720
1-1/4	1.660	1.204	0.215	0.649	600
1-1/2	1.900	1.423	0.225	0.787	540
2	2.375	1.845	0.250	1.111	470

Nom. Pipe Size (in)	O.D.	Average I.D.	Minimum Wall	Nominal Wt./Ft.	Maximum W.P. PSI*
2-1/2"	2.875	2.239	0.300	1.615	470
3"	3.500	2.758	0.350	2.306	440
4"	4.500	3.574	0.437	3.713	430
6"	6.625	5.434	0.562	7.132	370
8"	8.625	7.189	0.718	11.277	380

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CPVC PIPE

Schedule 40

Nominal Pipe Size (in)	O.D.	Average I.D.	Min. Wall	Nominal Wt./ft.	Maximum W.P. PSI*
1/4	0.540	0.344	0.088	0.096	780
3/8	0.675	0.473	0.091	0.128	620
1/2	0.840	0.602	0.109	0.190	600
3/4	1.050	0.804	0.113	0.253	480
1	1.315	1.029	0.133	0.371	450
1-1/4	1.660	1.360	0.140	0.502	370
1-1/2	1.900	1.590	0.145	0.599	330
2	2.375	2.047	0.154	0.803	280
2-1/2	2.875	2.445	0.203	1.267	300
3	3.500	3.042	0.216	1.660	260
3-1/2	4.000	3.521	0.226	1.996	240
4	4.500	3.998	0.237	2.363	220
5	5.563	5.016	0.258	2.874	190
6	6.625	6.031	0.280	4.164	180
8	8.625	7.942	0.322	6.268	160
10	10.750	9.976	0.365	8.886	140
12	12.750	11.889	0.406	11.751	130
14	14.000	13.073	0.437	13.916	130
16	16.000	14.940	0.500	18.167	130
18	18.000	16.809	0.562	22.965	130
20	20.000	18.743	0.593	26.976	120
24	24.000	22.544	0.687	37.539	120

Schedule 80

Nominal Pipe Size (in)	O.D.	Average I.D.	Min. Wall	Nominal Wt./ft.	Maximum W.P. PSI*
1/4	0.540	0.282	0.119	0.117	1130
3/8	0.675	0.403	0.126	0.162	920
1/2	0.840	0.526	0.147	0.238	850
3/4	1.050	0.722	0.154	0.322	690
1	1.315	0.936	0.179	0.473	630
1-1/4	1.660	1.255	0.191	0.654	520
1-1/2	1.900	1.476	0.200	0.793	470
2	2.375	1.913	0.218	1.097	400
2-1/2	2.875	2.29	0.276	1.674	420
3	3.500	2.864	0.300	2.242	370
3-1/2	4.000	3.326	0.318	2.735	350
4	4.500	3.786	0.337	3.277	320
5	5.563	4.768	0.375	4.078	290
6	6.625	5.709	0.432	6.258	280
8	8.625	7.565	0.500	9.506	250
10	10.750	9.493	0.593	14.095	230
12	12.750	11.294	0.687	19.392	230
14	14.000	12.41	0.750	23.261	220
16	16.000	14.213	0.843	29.891	220
18	18.000	16.014	0.937	35.419	220
20	20.000	17.814	1.031	45.879	220
24	24.000	21.418	1.218	64.959	210

Note: *Pressure ratings are for water, non-shock, @73°F. Threaded pipe requires a 50% reduction in the pressure ratings stated for plain-end pipe @ 73°F. Threading recommended for Schedule 80 or heavier walls only. Maximum service temperature for PVC is 140°F. Maximum service temperature for CPVC is 200°F. The pressure rating of the pipe must be de-rated when working at elevated temperatures. Chemical resistance data should be referenced for proper material selection and possible de-rating when working with fluids other than water.

Temperature De-rating

The pressure ratings given are for water, non-shock, @ 73°F. The specified derating factors for PVC or for CPVC are suitable for pipe conveying water at elevated temperatures. To determine elevated temperature rating, multiply 73°F [23°C] pressure rating by appropriate factor shown in the tables.

When working near maximum specified temperature, solvent cement joints are recommended in place of threaded connections. Where disassembly is required at elevated temperatures use Special reinforced (SR) adapters, flanges, unions or grooved coupling connections.

Only Schedule 80 or heavier wall thickness pipe (PVC or CPVC) should be threaded. Do NOT thread Schedule 40 pipe or other thinner-walled pipe such as SDR 13.5, SDR 21, SDR 26, etc. Threading requires a 50% reduction in the pipe's specified pressure rating @ 73°F.

See Chemical Resistance Data for Pressure Piping information for both chemical compatibility and potential temperature limitations when using certain chemicals.

PVC Pipe

Operating Temp (°F)	De-Rating Factor
73	1.00
80	0.88
90	0.75
100	0.62
110	0.51
120	0.40
130	0.31
140	0.22

EX: 2" PVC SCHEDULE 80 @ 120°F = 400 psi x 0.40 = 160 psi max. @ 120°F.

CPVC Pipe

Operating Temp (°F)	De-Rating Factor
73-80	1.00
90	0.91
100	0.82
110	0.72
120	0.65
130	0.57
140	0.50
150	0.42
160	0.40
170	0.29
180	0.25
200	0.20