

## Schedule 80 PVC Technical

### Schedule 80 PVC Pipe Dimensions & Pressure Ratings

#### Schedule 80 Pipe Dimensions & Pressure Ratings

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

### Maximum PVC Service Temperature 140°F

#### Pressure De-rating at Elevated Temperatures

The pressure ratings given above are for water, non-shock, @ 73°F. The specified derating factors for PVC 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 table for desired operating temperature. When working near maximum specified temperature, solvent cement joints are recommended in place of threaded connections. Where disassembly is required at elevated temperatures, use Spears® Special reinforced (SR) adapters, flanges, unions or grooved coupling connections. Spears® recommends that only Schedule 80 or heavier wall thickness pipe should be threaded.

#### 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.

## Schedule 40 Fittings Technical

### Schedule 40 PVC Pipe Dimensions & Pressure Ratings

#### Schedule 40 Pipe

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

**Maximum PVC Service Temperature 140 °F**

**Spears® does not recommend threading Schedule 40 Pipe.**

**Use Schedule 40 Male Adapters, Schedule 40 Female Adapters or Spears® Special Reinforced (SR) Female Adapters**

#### Pressure De-rating at Elevated Temperatures

The pressure ratings given above are for water, non-shock, @ 73°F. The specified derating factors for PVC 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 table for desired operating temperature. When working near maximum specified temperature, solvent cement joints are recommended in place of threaded connections. Where disassembly is required at elevated temperatures use Spears® Special reinforced (SR) adapters, flanges, unions or grooved coupling connections. Spears® recommends that only Schedule 80 or heavier wall thickness pipe should be threaded.

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