



PROFESSIONAL PLASTICS, INC.

Leading Global Supplier of Engineered Plastic Shapes

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CPVC Pipe – Sizes, Specifications & Applications

Schedule 40 Dimensions

Schedule 80 Dimensions

Nom. Pipe Size (in)	O.D.	Average I.D.	Min. Wall	Nom. Wt./Ft.	Max. 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	.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

Nom. Pipe Size (in)	O.D.	Average I.D.	Min. Wall	Nom. Wt./Ft.	Max. W.P. PSI**
1/4"	.540	.282	0.119	0.117	1130
3/8"	.675	.403	0.126	0.162	920
1/2"	.840	.526	0.147	0.238	850
3/4"	1.050	.722	0.154	0.322	690
1"	1.315	.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	2.290	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	.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	12.410	0.750	23.261	220

12"	12.750	11.889	0.406	11.751	130	16"	16.000	14.213	0.843	29.891	220
14"	14.000	13.073	0.437	13.916	130	18"	18.000	16.014	0.937	35.419	220
16"	16.000	14.940	0.500	18.167	130	20"	20.000	17.814	1.031	45.879	220
18"	18.000	16.809	0.562	22.965	130	24"	24.000	21.418	1.218	64.959	210
20"	20.000	18.743	0.593	29.976	120						
24"	24.000	22.544	0.687	37.539	120						

<p>CPVC Industrial Pipe Temperature Derating</p> <p>The pressure ratings given are for water, non-shock, @ 73°F. The following temperature de-rating factors are to be applied to the working pressure ratings listed when operating at elevated temperatures. Multiply the working pressure rating of the selected pipe at 73°F, by the appropriate de-rating factor to determine the maximum working pressure rating of the pipe at the elevated temperature chosen.</p> <p>EX: 10" CPVC SCH 80 @ 120°F = ? 230 psi x 0.65 = 149.5 psi max. @ 120°F</p> <p>THE MAXIMUM SERVICE TEMPERATURE FOR CPVC IS 200°F.</p> <p>Solvent cemented joints should be utilized when working at or near maximum temperatures. GF Harvel does not recommend the use of CPVC for threaded connections at temperatures above 150°F; use flange d joints, unions, or roll grooved couplings where disassembly is necessary at elevated temperatures.</p> <p>Threading of Sch 40 CPVC pipe is not a recommended practice due to insufficient wall thickness. Thread only Sch 80 or heavier walls.</p> <p>Threading requires a 50% reduction in pressure rating stated for plain end pipe @73°F.</p> <p>Chemical resistance data should be referenced for proper material selection and possible de-rating when working with fluids other than water. Refer to GF Harvel 112/401 Product Bulletin for chemical resistance and installation data.</p>	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

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CPVC Industrial Pipe Applications Corrosion resistant pressure pipe, IPS sizes 1/4" through 24", for use at temperatures up to and including 200°F. Pressure rating (130 psi to 1130 psi) varies with schedule, pipe size, and temperature as stated in GF Harvel engineering bulletin (Product Bulletin 112/401). Generally resistant to most acids, bases, salts, aliphatic solutions, oxidants, and halogens. Chemical resistance data is available and should be referenced for proper material selection. Pipe exhibits excellent physical properties and flammability characteristics (independently tested flame and smoke characteristics-ULC,1993). Typical applications include: chemical processing, plating, high purity applications, hot and cold potable water systems, water and wastewater treatment, and other industrial applications involving hot corrosive fluid transfer.

Specifications All CPVC Schedule 40 and schedule 80 pipe shall be manufactured from a Type IV, Grade I Chlorinated Polyvinyl Chloride (CPVC) compound with a Cell Classification of 23447 per ASTM D1784. The pipe shall be manufactured in strict compliance to ASTM F441, consistently meeting the Quality Assurance test requirements of this standard with regard to material, workmanship, burst pressure, flattening, and extrusion quality. The pipe shall be produced in the USA using domestic materials, by an ISO 9001 certified manufacturer, and shall be stored indoors after production, at the manufacturing site, until shipped from factory. This pipe shall carry the National Sanitation Foundation (NSF) seal of approval for potable water applications.



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