

Schedule 80 CPVC Pressure Pipe

CPVC Pressure Pipe – 20 ft. Lengths

P/L 70 Material: CPVC 23447-B Gray
Meets ASTM F441

Inch Size	Part Number	lift quantity	lbs. per 100 ft.	avg. o.d.	min. wall	psi at 73° F
1/2	C8008-005AB*	8400 ft.	22.76	.840	.147	848
3/4	C8008-007AB*	7600 ft.	31.24	1.050	.154	688
1	C8008-010AB*	4200 ft.	46.23	1.315	.179	630
1 1/4	C8008-012AB*	4000 ft.	61.26	1.660	.191	520
1 1/2	C8008-015AB*	3600 ft.	76.52	1.900	.200	471
2	C8008-020AB*	2100 ft.	104.60	2.375	.218	404
2 1/2	C8008-025AB*	1460 ft.	156.55	2.875	.276	425
3	C8008-030AB*	1160 ft.	214.17	3.500	.300	375
4	C8008-040AB*	1020 ft.	301.49	4.500	.337	324
6	C8008-060AB*	440 ft.	597.86	6.625	.432	279
8	C8008-080AB	280 ft.	928.28	8.625	.500	246
10	C8008-100AB	140 ft.	1334.30	10.750	.593	230
12	C8008-120AB	100 ft.	1834.40	12.750	.687	230

*IAPMO (UPC Listed)

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Solvent-Welded Pressure Rating vs. Service Temperature — CPVC and PVC

Nom. Size	D Outside Dia.	t Wall	DR=D/t	P														
				73°F		90°F	100°F	110°F	120°F		130°F		140°F		160°F	180°F	200°F	210°F
				PVC f=1 S=2000	CPVC f=1 S=2000	PVC f=0.75 S=1500	PVC f=0.62 S=1240	PVC f=0.50 S=1000	PVC f=0.40 S=800	CPVC f=0.65 S=1300	PVC f=0.30 S=600	CPVC f=0.57 S=1135	PVC f=0.22 S=440	CPVC f=0.50 S=1000	CPVC f=0.40 S=800	CPVC f=0.25 S=500	CPVC f=0.20 S=400	CPVC f=0.16 S=320
1/2	.840	.147	5.714	848	848	636	526	424	339	552	255	484	187	424	339	212	170	136
3/4	1.050	.154	6.818	688	688	516	426	344	275	447	206	392	151	344	275	172	138	110
1	1.315	.179	7.346	630	630	473	390	315	252	410	189	359	139	315	252	158	126	101
1 1/4	1.660	.191	8.691	520	520	390	322	260	208	338	156	296	114	260	208	130	104	83
1 1/2	1.900	.200	9.500	471	471	353	292	235	188	306	141	268	104	235	188	118	94	75
2	2.375	.218	10.894	404	404	303	251	202	162	263	121	230	89	202	162	101	81	65
2 1/2	2.875	.276	10.417	425	425	319	263	212	170	276	127	242	93	212	170	106	85	68
3	3.500	.300	11.667	375	375	281	233	188	150	244	113	214	83	188	150	94	75	60
4	4.500	.337	13.353	324	324	243	201	162	130	210	97	185	71	162	130	81	65	52
6	6.625	.432	15.336	279	279	209	173	140	112	181	84	159	61	140	112	70	56	45
8	8.625	.500	17.250	246	246	185	153	123	98	160	74	140	54	123	98	62	49	39

- P = $\frac{2St}{D-t} = \frac{2S}{DR-1} = P_{73°F}$
- P = Pressure rating of pipe at service temperatures (psi)
- S = Hydrostatic design stress (psi)
- D = Outside diameter of pipe (inches)
- t = Pipe wall thickness (inches)
- f = Derating factor for service temperature
- DR = Dimension ratio (D/t)
- P_{73°F} = Pressure rating at 73°F

- Figures for pressure rating at 73°F are rounded off from actual calculated values. Pressure ratings for other temperatures are calculated from 73°F values.
- Pressure rating values are for PVC (12454-B) and CPVC (23447-B) pipe and for most sizes are calculated from the experimentally determined long-term strength of PVC1 and CPVC extrusion compounds. Because molding compounds may differ in long-term strength and elevated temperature properties from pipe compounds, piping systems consisting of extruded pipe and molded fittings may have lower pressure ratings than those shown here, particularly at the higher temperatures. Caution should be exercised when designing PVC systems operating above 100°F and CPVC systems operating above 180°F.
- The pressure ratings given are for solvent-cemented systems. When adding valves, flanges or other components, the system must be derated to the rating of the lowest component. (Pressure ratings: molded or cut threads are rated at 50% of solvent-cemented systems; flanges and unions are 150 psi; for valves, see manufacturer's recommendation.)