

# SUBMITTAL FOR CHARLOTTE PIPE® PVC SCHEDULE 80 PRESSURE PIPE AND FITTING SYSTEM

Date: \_\_\_\_\_

Job Name: \_\_\_\_\_

Location: \_\_\_\_\_

Engineer: \_\_\_\_\_

Contractor: \_\_\_\_\_

**► Scope:**

This specification covers PVC Schedule 80 pipe and fittings for pressure applications. This system is intended for pressure applications where the operating temperature will not exceed 140° F.

**► Specification:**

Pipe and fittings shall be manufactured from virgin rigid PVC (polyvinyl chloride) vinyl compounds with a cell class of 12454 as identified in ASTM D 1784.

PVC Schedule 80 pipe shall be Iron Pipe Size (IPS) conforming to ASTM D 1785. Injection molded PVC Schedule 80 fittings shall conform to ASTM D 2467. PVC Schedule 80 threaded fittings shall conform to ASTM D 2464. Pipe and fittings shall be manufactured as a system and be the product of one manufacturer. All pipe and fittings shall be manufactured in the United States. Pipe and fittings shall conform to NSF International Standard 61 and the health effects portion of NSF Standard 14.

**► Installation:**

Installation shall comply with the latest installation instructions published by Charlotte Pipe and Foundry and shall conform to all applicable plumbing, fire, and building code requirements. Buried pipe shall be installed in accordance with ASTM F 1668 and ASTM D 2774. Solvent cement joints shall be made in a two-step process with a primer meeting ASTM F 656 and a medium- or heavy-bodied solvent cement conforming to ASTM D 2564. The system shall be protected from chemical agents, fire-stopping materials, thread sealant, plasticized-vinyl products or other aggressive chemical agents not compatible with PVC compounds. The system shall be hydrostatically tested after installation. **WARNING!** Never test with or transport/store compressed air or gas in PVC pipe or fittings. Doing so can result in explosive failures and cause severe injury or death.

**► Referenced Standards:**

ASTM D 1784: Rigid Vinyl Compounds  
 ASTM D 1785: PVC Plastic Pipe, Schedule 80  
 ASTM D 2464 or D 2467: PVC Threaded Fittings, Schedule 80  
 ASTM D 2467: PVC Socket Fittings, Schedule 80  
 ASTM D 2564: Solvent Cements for PVC Pipe and Fittings

ASTM D 2774: Underground Installation of Thermoplastic Pressure Piping  
 ASTM F 1668: Procedures for Buried Plastic Pipe  
 NSF Standard 14: Plastic Piping Components & Related Materials  
 NSF Standard 61: Drinking Water System Components—Health Effects



Quarter Bend

Eighth Bend

Cross

Street Quarter Bend

Male Adapter

Bushing

Female Adapter

Cap

Plug

Tee

Coupling

Van Stone Flange

*Not all fitting patterns shown*

**Schedule 80 Tapered Socket Dimensions**

PVC SCHEDULE 80 - ASTM D 2467

Nominal Size	Schedule 80 and Schedule 40 Socket Diameter			Schedule 80 Socket Length C (Minimum)	Schedule 40 Socket Length C (Minimum)
	Entrance A	Bottom B	Tolerance		
1/2	0.848	0.836	±0.004	0.875	0.688
3/4	1.058	1.046	±0.004	1.000	0.719
1	1.325	1.310	±0.005	1.125	0.875
1 1/4	1.670	1.655	±0.005	1.250	0.938
1 1/2	1.912	1.894	±0.006	1.375	1.094
2	2.387	2.369	±0.006	1.500	1.156
2 1/2	2.889	2.868	±0.007	1.750	1.750
3	3.516	3.492	±0.008	1.875	1.875
4	4.518	4.491	±0.009	2.250	2.000
6	6.647	6.614	±0.011	3.000	3.000
8	8.655	8.610	±0.015	4.000	4.000
10	10.780	10.735	±0.015	5.000	5.000
12	12.780	12.735	±0.015	6.000	6.000

  

**PIPE REFERENCE GUIDE**

Product	Sizes Available																		
	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14	16	
PVC Schedule 80	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

# PVC Schedule 80 Pipe

**PVC Schedule 80 Pipe, Type 1, Grade 1 - Plain End**


PVC SCHEDULE 80 (GRAY)			PLAIN END			PVC 1120	
PART NO.	NOM. SIZE	UPC # 611942-	QTY. PER SKID	AVG. OD (IN.)	MIN. WALL (IN.)	MAX WORK PRESSURE AT 23° C OR 73° F	WT. PER 100 FT. (LBS.)
PVC 10002	1/4" x 20'	04920	15140'	0.540	.119	1130 PSI	10.0
PVC 10003	3/8" x 20'	04917	9360'	0.675	.126	920 PSI	13.8
PVC 10005	1/2" x 20'	03968	9000'	0.840	.147	850 PSI	20.3
PVC 10007	3/4" x 20'	03969	7000'	1.050	.154	690 PSI	27.5
PVC 10010	1" x 20'	03970	3540'	1.315	.179	630 PSI	40.5
PVC 10012	1 1/4" x 20'	03973	4240'	1.660	.191	520 PSI	55.9
PVC 10015	1 1/2" x 20'	03976	3300'	1.900	.200	470 PSI	67.7
PVC 10020	2" x 20'	03977	1980'	2.375	.218	400 PSI	93.6
PVC 10025	2 1/2" x 20'	03978	1460'	2.875	.276	420 PSI	142.8
PVC 10030	3" x 20'	03979	1000'	3.500	.300	370 PSI	194.2
PVC 10040	4" x 20'	03980	1140'	4.500	.337	320 PSI	279.3
PVC 10050	5" x 20'	04831	760'	5.563	.375	290 PSI	387.3
PVC 10060	6" x 20'	03981	520'	6.625	.432	280 PSI	532.7
PVC 10080	8" x 20'	04175	300'	8.625	.500	250 PSI	808.9
PVC 10100	10" x 20'	04768	160'	10.750	.593	230 PSI	1199.3
PVC 10120	12" x 20'	04770	120'	12.750	.687	230 PSI	1650.1
PVC 10140	14" x 20'	04816	60'	14.000	.750	220 PSI	1930.0
PVC 10160	16" x 20'	04919	60'	16.000	.843	220 PSI	2544.1

**Note:** Full pallets are polyethylene wrapped for cleanliness and UV protection.

NSF Listed. Meets All Requirements of ASTM D 1784 and ASTM D 1785.



## WARNING

Testing with or use of compressed air or gas in PVC / ABS / CPVC pipe or fittings can result in explosive failures and cause severe injury or death.

AIR/GAS

- NEVER test with or transport/store compressed air or gas in PVC / ABS / CPVC pipe or fittings.
- NEVER test PVC / ABS / CPVC pipe or fittings with compressed air or gas, or air over water boosters.
- ONLY use PVC / ABS / CPVC pipe or fittings for water or approved chemicals.
- Refer to warnings on PFFA's website and ASTM D 1785.