

# SUBMITTAL FOR CHARLOTTE PIPE® CHEMDRAIN® CPVC CHEMICAL WASTE SCHEDULE 40 PIPE AND FITTINGS

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

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

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

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

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

**► Scope:**

This specification covers CPVC Schedule 40 pipe and fittings for chemical waste drain applications. ChemDrain is intended for use in non-pressure drain applications where the temperature will not exceed 220°F.

**► Specification:**

Pipe and fittings shall be manufactured as a system, be the product of one manufacturer and be manufactured in the United States. All pipe, fittings, and solvent cement shall be supplied together as a system, as Charlotte Pipe ChemDrain chemical waste system manufactured by Charlotte Pipe and Foundry. Pipe and fittings shall conform to the National Sanitation Foundation Standard (NSF) 14.

Special drainage systems for corrosive chemical or acid waste shall be manufactured by CPVC Type IV, Grade I, ASTM Cell Class 23447. All system components shall be certified by NSF International for use in chemical waste drainage systems and bear the mark NSF-cw. All system piping shall be Schedule 40 CPVC produced to the dimensional requirements of ASTM F 2618 and the manufacturer's specifications. All pipe and fittings shall be CPVC drainage patterns meeting the requirements of ASTM F 2618 and the manufacturer's specifications, as applicable.

**► 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 D 2321 and ASTM F 1668. Solvent welded joints shall be made with ChemDrain One-Step solvent cement conforming to ASTM F 493. The system shall be protected from items that are not compatible with CPVC compounds; materials like thread sealants, plasticized vinyl products, fire stopping devices, or other aggressive chemical agents. System shall be hydrostatically tested after installation. **WARNING!** Use of compressed air or gas in CPVC pipe or fittings can result in explosive failures and cause severe injury or death.

**► Referenced Standards:**

- |                 |  |
|-----------------|--|
| ASTM D 1784     | Rigid CPVC Vinyl Compounds   |
| ASTM D 2321     | Underground Installation of Thermoplastic Pipe (non-pressure applications)     |
| ASTM F 493      | Solvent Cements for CPVC Pipe and Fittings                                     |
| ASTM F 1668     | Procedures for Buried Plastic Pipe   |
| ASTM F 2618     | Standard for Chlorinated Poly (Vinyl Chloride) Chemical Waste Drainage Systems |
| NSF Standard 14 | Plastic Piping Components and Related Materials                                |



<b>ChemDrain® CPVC Schedule 40 Pipe</b> <b>Type IV, Grade 1</b>				<b>ASTM F 2618</b>																																																									
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3">CPVC SCHEDULE 40 (LIGHT GRAY)</th> <th colspan="2">PLAIN END</th> <th>CPVC 4120</th> </tr> <tr> <th>PART NO.</th> <th>NOM. SIZE</th> <th>UPC # 611942-</th> <th>QTY. PER SKID</th> <th>AVG. OD (IN.)</th> <th>MIN. WALL (IN.)</th> <th>WT. PER 100 FT. (LBS.)</th> </tr> </thead> <tbody> <tr> <td>AW 14015</td> <td>1 1/2" x 10'</td> <td>10732</td> <td>1650'</td> <td>1.900</td> <td>.145</td> <td>55.3</td> </tr> <tr> <td>AW 14002</td> <td>2" x 10'</td> <td>10733</td> <td>1110'</td> <td>2.375</td> <td>.154</td> <td>74.3</td> </tr> <tr> <td>AW 14003</td> <td>3" x 10'</td> <td>10734</td> <td>1130'</td> <td>3.500</td> <td>.216</td> <td>154.2</td> </tr> <tr> <td>AW 14004</td> <td>4" x 10'</td> <td>10735</td> <td>670'</td> <td>4.500</td> <td>.237</td> <td>219.6</td> </tr> <tr> <td>AW 14006</td> <td>6" x 10'</td> <td>10736</td> <td>330'</td> <td>6.625</td> <td>.280</td> <td>386.1</td> </tr> <tr> <td>AW 14008</td> <td>8" x 10'</td> <td>11363</td> <td>180'</td> <td>8.625</td> <td>.322</td> <td>581.1</td> </tr> </tbody> </table>				CPVC SCHEDULE 40 (LIGHT GRAY)			PLAIN END		CPVC 4120	PART NO.	NOM. SIZE	UPC # 611942-	QTY. PER SKID	AVG. OD (IN.)	MIN. WALL (IN.)	WT. PER 100 FT. (LBS.)	AW 14015	1 1/2" x 10'	10732	1650'	1.900	.145	55.3	AW 14002	2" x 10'	10733	1110'	2.375	.154	74.3	AW 14003	3" x 10'	10734	1130'	3.500	.216	154.2	AW 14004	4" x 10'	10735	670'	4.500	.237	219.6	AW 14006	6" x 10'	10736	330'	6.625	.280	386.1	AW 14008	8" x 10'	11363	180'	8.625	.322	581.1			
CPVC SCHEDULE 40 (LIGHT GRAY)			PLAIN END		CPVC 4120																																																								
PART NO.	NOM. SIZE	UPC # 611942-	QTY. PER SKID	AVG. OD (IN.)	MIN. WALL (IN.)	WT. PER 100 FT. (LBS.)																																																							
AW 14015	1 1/2" x 10'	10732	1650'	1.900	.145	55.3																																																							
AW 14002	2" x 10'	10733	1110'	2.375	.154	74.3																																																							
AW 14003	3" x 10'	10734	1130'	3.500	.216	154.2																																																							
AW 14004	4" x 10'	10735	670'	4.500	.237	219.6																																																							
AW 14006	6" x 10'	10736	330'	6.625	.280	386.1																																																							
AW 14008	8" x 10'	11363	180'	8.625	.322	581.1																																																							

Quarter Bend

Cleanout Tee w/Plug

Sixteenth Bend

Transitional Coupling

Wye

Sanitary Tee

Jar Trap with Tail Piece Adapter

One-Step CPVC Solvent Cement

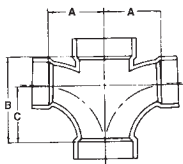
**Not all patterns shown**

**PART NO. AW 429C**
**Double Sanitary Tee, Reducing**

(Sanitary Cross)

ALL HUB

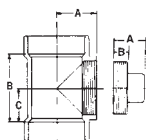
SIZE	A	B	C
2 x 2 x 1½ x 1½	2 <sup>3</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>8</sub>	1 <sup>15</sup> / <sub>16</sub>
3 x 3 x 2 x 2	2 <sup>7</sup> / <sub>8</sub>	3 <sup>5</sup> / <sub>16</sub>	2 <sup>1</sup> / <sub>8</sub>


**PART NO. AW 444XC**
**Cleanout Tee**

with Cleanout Plug

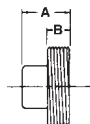
HUB X HUB X FPT

SIZE	A	B	C
1½	1 <sup>15</sup> / <sub>16</sub>	2 <sup>3</sup> / <sub>8</sub>	1 <sup>3</sup> / <sub>16</sub>
2	2 <sup>1</sup> / <sub>4</sub>	3	1 <sup>1</sup> / <sub>2</sub>
3	2 <sup>11</sup> / <sub>16</sub>	3 <sup>7</sup> / <sub>8</sub>	1 <sup>15</sup> / <sub>16</sub>
4	3 <sup>3</sup> / <sub>8</sub>	5 <sup>1</sup> / <sub>8</sub>	2 <sup>9</sup> / <sub>16</sub>
6	4	8	4


**Cleanout Plug**

MPT

SIZE	A	B
1½	1 <sup>3</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>
2	1 <sup>3</sup> / <sub>8</sub>	5 <sup>5</sup> / <sub>8</sub>
3	1 <sup>3</sup> / <sub>4</sub>	3 <sup>3</sup> / <sub>4</sub>
4	1 <sup>7</sup> / <sub>8</sub>	7 <sup>7</sup> / <sub>8</sub>
6	2	1


**PART NO. AW 501C**
**Combination Wye and 1/8 Bend**

(One Piece)

ALL HUB

SIZE	A	B	C
1½	3 <sup>5</sup> / <sub>16</sub>	3 <sup>1</sup> / <sub>2</sub>	3 <sup>15</sup> / <sub>16</sub>
2	5 <sup>1</sup> / <sub>8</sub>	4 <sup>7</sup> / <sub>16</sub>	5 <sup>1</sup> / <sub>8</sub>
3	7 <sup>9</sup> / <sub>16</sub>	6 <sup>1</sup> / <sub>2</sub>	7 <sup>9</sup> / <sub>16</sub>
4	10	8 <sup>1</sup> / <sub>2</sub>	10

