



UPVC

UNPLASTICISED POLYVINYL CHLORIDE

CHARLOTTE
PIPE AND FOUNDRY COMPANY

Polypipe

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UPVC Information

Size Range
0.5 – 16 inch

Pressure Rating
Up to 16 bar
(1600 kpa)

Operating Temperature
0 – 60°C

Joining Technology
Solvent cement

UPVC Introduction

Unplasticised Polyvinyl Chloride (UPVC) is a plastic piping system material suitable for use within many areas of water treatment, chemical processing, food and beverage, and similar industries / processes. For more information, contact a member of our technical sales team at: info@fusionaus.com.

Standards Compliance

- + ASTM D 1784: Rigid Vinyl Compounds
- + ASTM D 1785: PVC Plastic Pipe, Schedule 80
- + ASTM D 2464 or ASTM D 2467: PVC Threaded Fittings, Schedule 80
- + ASTM D 2467: PVC Socket Fittings, Schedule 80
- + NSF Standard 14: Plastic Piping Components & Related Materials
- + NSF Standard 61: Drinking Water System Components—Health Effects

Prior Usage Applications

- + A chlor-alkali plant construction in Brisbane, Queensland.
- + A chemical processing plant in Perth, Western Australia.
- + Many mine site projects throughout the Pilbara Region in Western Australia.
- + Multiple water authority plants throughout Western Australia, Queensland and South Australia.
- + Many containerised water treatment plants in Western Australia, Queensland and Papua New Guinea.

Benefits of UPVC

- + Excellent chemical resistance to many acids, alkalis, bases and salts.
- + Wide temperature rating of 0 – 60°C.
- + UV resistant / stabilised.
- + High pressure rating.
- + Free from toxicity, odours and tastes
- + Comforms to NSF International Standard 61.
- + Highly resilient, tough and durable with high tensile and impact strength.
- + Light in weight; making it easy to handle – reducing the cost of transportation and installation.
- + Easy to install with cleaner / glue.
- + Great corrosion resistance; doesn't scale, pit or rust.
- + Smooth walls provide a high consistent flow rate.
- + Lower thermal conductivity factor than metal.

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Manufacturer Backed 5 Year Warranty

Charlotte UPVC pipe and fittings come with a standard 5 year manufacturer backed warranty. For more than 100 years, Charlotte has demonstrated a genuine commitment to system design and quality, enabling them to confidently offer one of the most comprehensive product warranties in the market.

Charlotte UPVC Schedule 80 Fitting Pressure Ratings

Size	Pressure Rating (bar) @ 23°C			Pressure Rating (bar) @ 60°C		
	Socket Pipe Fittings	Threaded Fittings	Unions (Socket / Threaded)	Socket Pipe Fittings	Threaded Fittings	Unions (Socket / Threaded)
0.5"	58.6	35.1	29.3	10.3	16.2	16.2
0.75"	47.5	28.5	23.7	10.3	16.2	16.2
1"	43.4	26.0	21.7	10.3	16.2	16.2
1.25"	35.8	21.5	17.9	10.3	16.2	16.2
1.5"	32.4	19.4	16.2	10.3	16.2	16.2
2"	27.5	16.5	13.7	10.3	16.2	13.7
2.5"	28.9	17.3	14.4	10.3	-	-
3"	25.5	15.3	12.7	10.3	16.2	12.7
4"	22.0	13.2	11.0	10.3	-	-
6"	19.9	11.9	9.9	-	-	-
8"	19.3	11.5	9.6	10.3	-	-
10"	17.2	10.3	8.6	10.3	-	-
12"	15.8	9.5	7.9	10.3	-	-
14"	15.8	9.5	7.9	10.3	-	-
16"	15.1	9.1	7.5	-	-	-

- + Data has been converted from PSI to bar and Fahrenheit to Celsius from Charlotte Pipe Co data. Fusion is not responsible for the accuracy of this data. Please refer to the manufacturer's technical manual at charlottapipe.com for more comprehensive information.
- + Do not exceed the maximum working pressure of any system components including pipe, fittings, valves, nozzled or cut threads, unions, mechanical coupling or flanges.
- + The pressure rating of all components must be reduced at temperatures above 23°C. Refer to derating table available from charlottapipe.com.
- + Exceeding the maximum working temperature or pressure of the system may result in system failure and property damage.

Pipe

What is Schedule 80?

A pipe's "Schedule" is a reference to its wall thickness. The higher the schedule number, the thicker the wall becomes.

Why choose Schedule 80?

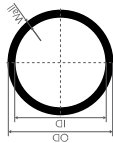
Schedule 80's thick wall provides for increased pressure loads and more suitability to harsher environments, making it commonly used in heavy duty commercial or industrial applications.

Primary PVC Benefits

- + Excellent chemical resistance to many acids, alkalis, bases and salts.
- + UV resistant / stabilised.
- + Wide temperature rating: 0-60°C
- + High pressure rating: Up to 16 bar

Schedule 80 Pipe 1.1.1

Code	Size	ID	OD	Wall	Charlotte Pipe Co	
					PN*	60°C
● 800050PG2C	0.5"	13.9	21.3	3.7	58.6	12.8
● 800075PG2C	0.75"	18.9	26.7	3.9	47.5	10.4
● 800100PG2C	1"	24.4	33.4	4.5	43.4	9.5
● 800125PG2C	1.25"	32.6	42.2	4.8	35.8	7.8
● 800150PG2C	1.5"	38.3	48.3	5	32.4	7.1
● 800200PG2C	2"	49.3	60.3	5.5	27.5	6.0
● 800250PG2C	2.5"	59	73	7	28.9	6.3
● 800300PG2C	3"	73.7	88.9	7.6	25.5	5.5
● 800400PG2C	4"	97.3	114.3	8.5	22.0	4.8
● 800600PG2C	6"	146.5	168.3	10.9	19.9	4.4
● 800800PG2C	8"	193.6	219	12.7	19.3	4.2
● 801000PG2C	10"	242.9	273.1	15.1	17.2	3.7
● 801200PG2C	12"	289.1	323.9	17.4	15.8	3.5
● 801400PG2C	14"	317.4	355.6	19.1	15.8	3.5
● 801600PG2C	16"	363.6	406.4	21.4	15.1	3.3



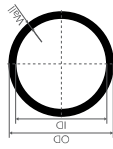
- + *PN measured in bar
- + Pressure and temperature data has been converted from PSI to bar and Fahrenheit to Celsius from Charlotte Pipe Co.'s USA-based data. Please refer to the manufacturer's technical manual at charlottepipe.com for more comprehensive information.
- + Do not exceed the maximum working pressure of any system components including pipe, fittings, valves, molded or cut threads, unions, mechanical coupling or flanges.

The pressure rating of all components must be reduced at temperatures above 23°C. Refer to de-rating table available from charlottepipe.com.

Exceeding the maximum working temperature or pressure of the system may result in system failure and property damage.

Schedule 40 Clear Pipe 1.1.2

Standard Length 3m



Code	Size	ID	OD	Wall	PN*
● 200060180	0.5"	15.3	21.4	2.8	21.2
● 200060181	0.75"	20.5	26.7	2.9	16.9
● 200060182	1"	26.2	33.5	3.4	15.5
● 200060183	1.25"	34.6	42.2	3.6	12.7
● 200060184	1.5"	40.4	48.3	3.7	12
● 200060185	2"	52	60.4	4	9.9
● 200060187	3"	77.3	88.9	5.5	9.2
● 200060188	4"	101.6	114.3	6.1	7.7
● 200060189	6"	153.2	168.3	7.2	7

*PN measured in bar at service temperature of 23°C



All measurements are in millimetres (mm) unless otherwise specified.

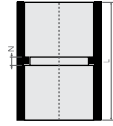
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Schedule 80 Fittings

Couplings

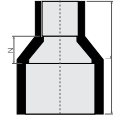
Charlotte Pipe Co



Equal Sockets 1.2.1

Code	Size	L	N
● 829005C	0.5"	50	4
● 829007C	0.75"	56	4
● 829010C	1"	62	4
● 829012C	1.25"	69	4
● 829015C	1.5"	75	4
● 829020C	2"	81	4
● 829025C	2.5"	96	5
● 829030C	3"	102	5
● 829040C	4"	121	5
● 829060C	6"	160	7
● 829080C	8"	210	7
● 829100	10"	-	-

+ Larger sizes are available upon request.



Reducing Sockets 1.2.2

Code	Size	L	N
● 829101C	0.75" x 0.5"	56	7
● 829130C	1" x 0.5"	61	8
● 829131C	1" x 0.75"	62	7
● 829168C	1.25" x 1"	70	8
● 829211C	1.5" x 1"	74	8
● 829212C	1.5" x 1.25"	75	7
● 829249C	2" x 1"	89	10
● 829251C	2" x 1.5"	81	23
● 829338C	3" x 2"	105	20
● 829420C	4" x 2"	131	34
● 829422C	4" x 3"	131	34
● 829532C	6" x 4"	169	35
● 829585	8" x 6"	-	-

Elbows

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+ Larger sizes are available upon request.

90° - Sockets 1.2.3

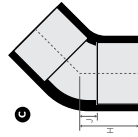
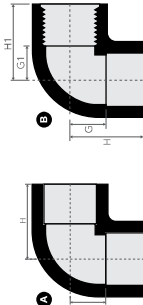
Code	Size	H	G
● 806005C	0.5"	38	16
● 806007C	0.75"	43	18
● 806010C	1"	51	22
● 806012C	1.25"	58	25
● 806015C	1.5"	62	27
● 806020C	2"	73	34
● 806025C	2.5"	88	43
● 806030C	3"	96	47
● 806040C	4"	120	62
● 806060C	6"	170	94
● 806080C	8"	219	117
● 806100	10"	-	-

90° - Socket x F-NPT 1.2.4

Code	Size	H	G	H1	G1
● 807005C	0.5"	35	13	36	18
● 807007C	0.75"	43	16	42	21
● 807010C	1"	47	19	46	22
● 807012C	1.25"	58	32	51	26
● 807015C	1.5"	61	26	54	27
● 807020C	2"	70	51	62	37

45° - Sockets 1.2.5

Code	Size	H	J
● 817005C	0.5"	30	7
● 817007C	0.75"	35	8
● 817010C	1"	38	8
● 817012C	1.25"	43	11
● 817015C	1.5"	48	13
● 817020C	2"	55	17
● 817025C	2.5"	64	19
● 817030C	3"	69	20
● 817040C	4"	91	33
● 817060C	6"	127	51
● 817080C	8"	159	58
● 817100	10"	-	-



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