

*The Mark of Leader*  
**POPULAR<sup>®</sup>**  
**PIPES**

# UPVC PRESSURE PIPES & FITTINGS WATER SUPPLY SYSTEM

BS-3505 equivalent to PS-3051/91  
ASTM D-1785 Schedule 40,80

*Save the Life and Future...*



**POPULAR PIPES GROUP OF COMPANIES**  
PROVIDING YOU THE BEST IS OUR FORTE



## **JOINTING**

A wide range of UPVC Fittings are available. They are economical, durable, leak proof, easy & quick for the connections. These Fittings include Coupling Sockets, Elbows, Tees, end Caps Flanges, (45° & 90°) and reducers. These Fittings are available in various sizes for different pressure classes of Pipes. Confirming to BS, PS, ASTM & other international Standards.

## **POPULAR UPVC PRESSURE JOINTING SYSTEM**

The following Jointing Systems are available.

1. Solvent Cement Joint.
2. Z Joint / Rubber Ring Joint.

## **SOLVENT CEMENT JOINTING SYSTEM**

Procedure for Solvent Joint Installation.

1. Chamfer the Pipe end at an angle of 15 or 20 to an extent of 0.5 mm length.
2. Apply solvent cement thoroughly & evenly over spigot end and inside of socket.
3. Ensure that both spigot & socket are thoroughly clean.
4. Insert the pipe quickly into the socket.
5. Hold for a while say 4-5 minutes.
6. Wipe all excessive solvent cement with a cloth.
7. Leave for 24 hours before pressure testing.

## **THINGS TO REMEMBER**

Knife or half round coarse file, natural bristle, primer, application cane solvent cement & tools tray are required for solvent cement jointing.

## **Z" JOINTING SYSTEM**

Procedure for Installation:

1. Ensure that the mating areas of spigot and socket are thoroughly clean. This is extremely important for the correct positioning of the rubber ring during assembly.
2. Set the rubber ring into the groove, pushing it firmly in as far as it goes all the way round. The opening in the rubber ring must face backwards.
3. Assess the full socket depth by simple measurement & mark spigot accordingly.
4. Accurate axial alignment of the spigot & socket prior to jointing is important, hand feed spigot into rubber joint until resistance from the inner seating section is felt.
5. Stop at the entry mark (13-25mm) from the end of the socket to cater for potential expansion & contraction.
6. Make sure that the pipes to be jointed are aligned correctly against each other.

## STANDARD ASTM D-1785 SCHEDULE 80

NOMINAL SIZE INCH	MEAN OUTER DIA(D) (mm)	WALL THICKNESS (S)		NOMINAL WEIGHT kg/m	PRESSURE RATING BAR	
		MIN	MAX		Thread bar	Unthread bar
1/2"	21.34	3.73	4.24	0.31	29.0	58.6
3/4"	26.67	3.91	4.42	0.41	23.4	47.6
1"	33.40	4.55	5.08	0.60	22.1	43.4
1 1/4"	42.16	4.85	5.44	0.84	17.9	35.9
1 1/2"	48.26	5.08	5.69	1.03	16.5	32.4
2"	60.32	5.54	6.20	1.41	13.8	27.6
3"	88.90	7.62	8.53	2.88	13.1	25.5
4"	114.30	8.56	9.58	4.22	11.0	22.1
6"	168.28	10.97	12.29	8.5	N.R.	19.3
8"	219.08	12.70	14.20	12.23	N.R.	17.2

## STANDARD ASTM D-1785 SCHEDULE 40

NOMINAL SIZE INCH	MEAN OUTER DIA(D) (mm)	WALL THICKNESS (S)		NOMINAL WEIGHT kg/m	PRESSURE RATING BAR BAR
		MIN	MAX		
1/2"	21.34	2.77	3.28	0.24	41.4
3/4"	26.67	2.87	3.38	0.33	33.1
1"	33.40	3.38	3.89	0.48	31.0
1 1/4"	42.16	3.56	4.06	0.65	25.5
1 1/2"	48.26	3.68	4.19	0.77	22.8
2"	60.32	3.91	4.42	1.04	19.3
3"	88.90	5.49	6.15	2.14	17.9
4"	114.30	6.02	6.73	3.05	15.2
6"	168.28	7.11	7.98	5.37	12.4
8"	219.08	8.18	9.20	8.11	11.0

## ADVANTAGES

- Corrosion Resistance
- Resistance to Biological Growth
- Flexibility
- Coefficient of Friction
- Thermal Insulation
- Environmental Benefit
- Strength to Weight Ratio
- Chemical Resistance
- Long Term Tensile Strength
- Impact Strength
- Longer Lengths
- Flame Resistance
- Favorable Cost



Serving **360°**  
of PIPING  
Solutions

## MATERIAL

U-Plasticised Polyvinyl Chloride (U-PVC).

U-PVC Pressure Piping System are in Gray & White Color.

### STANDARD & SPECIFICATIONS AS PER BS-3505 EQUIVALENT TO PS-3051/91

Nominal Size	MEAN OUTSIDE DIAMETER		WALL THICKNESS												
			Class-B (6-Bar)			Class-C (9- Bar)			Class-D (12-Bar)			Class-E (15 bar)			
	INCH	MIN.	MAX.	Averaged Value	Individual Value		Averaged Value	Individual Value		Averaged Value	Individual Value		Averaged Value	Individual Value	
MAX.				MIN.	MAX.	MAX.	MIN.	MAX.	MAX.	MIN.	MAX.	MAX.	MIN.	MAX.	
Inch	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
3/8"	17.0	17.3	-	-	-	-	-	-	-	-	-	-	1.9	1.5	1.9
1/2"	21.2	21.5	-	-	-	-	-	-	-	-	-	-	2.1	1.7	2.1
3/4"	26.6	26.9	-	-	-	-	-	-	-	-	-	-	2.5	1.9	2.5
1"	33.4	33.7	-	-	-	-	-	-	-	-	-	-	2.7	2.2	2.7
1 1/4"	42.1	42.4	-	-	-	-	-	-	2.7	2.2	2.7	3.2	2.7	3.2	
1 1/2"	48.1	48.4	-	-	-	-	-	-	3.0	2.5	3.0	3.7	3.1	3.7	
2"	60.2	60.5	-	-	-	3.0	2.5	3.0	3.7	3.1	3.7	4.5	3.9	4.5	
2 1/2"	75.0	75.3	-	-	-	3.5	3.0	3.5	4.5	3.9	4.5	5.5	4.8	5.5	
3"	88.7	89.1	3.4	2.9	3.4	4.1	3.5	4.1	5.3	4.6	5.3	6.5	5.7	6.6	
4"	114.1	114.5	4.0	3.4	4.0	5.2	4.5	5.2	6.8	6.0	6.9	8.3	7.3	8.4	
5"	140.0	140.4	4.4	3.8	4.4	6.3	5.5	6.4	8.3	7.3	8.4	10.1	9.0	10.4	
6"	168.0	168.5	5.2	4.5	5.2	7.5	6.6	7.6	9.9	8.8	10.2	12.1	10.8	12.5	
7"	193.5	194.0	6.0	5.2	6.0	8.7	7.7	8.9	11.4	10.1	11.7	13.9	12.4	14.3	
8"	218.8	219.4	6.1	5.3	6.1	8.8	7.8	9.0	11.6	10.3	11.9	14.1	12.6	14.5	
9"	244.1	244.8	6.7	5.9	6.8	9.8	8.7	10.0	12.9	11.5	13.3	15.8	14.1	16.3	
10"	272.6	273.4	7.5	6.6	7.6	10.9	9.7	11.2	14.3	12.8	14.8	17.5	15.7	18.1	
12"	323.4	324.3	8.8	7.8	9.0	12.9	11.5	13.3	17.0	15.2	17.5	20.8	18.7	21.6	
14"	355.0	356.0	9.6	8.5	9.8	14.1	12.6	14.5	18.6	16.7	19.2	22.8	20.5	23.6	

### MAXIMUM SUSTAINED WORKING & FIELD TEST PRESSURE

WORKING PRESSURE			
CLASS	BAR	Kgf/Cm <sup>2</sup>	lbf/in <sup>2</sup>
B	6	6.12	87
C	9	9.18	130
D	12	12.25	173
E	15	15.30	217

TEST PRESSURE			
CLASS	BAR	Kgf/Cm <sup>2</sup>	lbf/in <sup>2</sup>
B	9	9.18	130
C	12	13.77	195
D	15	18.38	259
E	18	22.95	325