

Idol



➤ PVC
PRESSURE
PIPE



Selfit PVC-u Pipes for Agriculture & Potable Water Supply

(As Per IS : 4985 - 2000)

- » The selfit (solvent cement joint) pipes have one end self-socketed and the other end plain, which fits snugly without the use of couplers. The strong solvent cement joint is permanent and trouble-free.

Advantages

- » Selfit sockets are formed with high precision on specially developed machines.
- » 50% saving in installation time, as compared with plain ended pipes and loose couplers.
- » The number of joints are reduced by 50%, resulting in substantial saving in labor costs.
- » The requirement of solvent cement for a pipeline is reduced by almost 50%.
- » Eliminates the inconvenience of loose couplers, & reduction in inventory costs.
- » Selfit pipes are supplied in a standard length of 6 mtrs exclusive of the socket portion.

Air Valve Selection and Installation

- » Combination of air and water is very dangerous for pvc pipes.
- » Air being compressible in nature, tends to accumulate in the pipeline and in case of non-functioning of air valves it results in high localized pressure.
- » To avoid this phenomenon, good quality air valves should be installed at all peak points in the pipeline with a distance of 300 to 400 meters between them.
- » Air valves are of two types : single acting and double acting.
- » It is recommended that the size of the air valve be about $\frac{1}{4}$ th the diameter of pipe for the admission as well as release of air.
- » The function of an air valve is the same as that of a nose in a human body.

Requirement of PVC-u Adhesive for Jointing

Outside Dia. of Pipe (mm)	Outside Dia. of Pipe (Inch)	Approx. no of Joints/ kg. of Solvent Cement
20	1/2	350
25	3/4	300
32	1	250
40	1.1/4	200
50	1.1/2	150
63	2	125
75	2.1/2	103
90	3	79
110	4	54
140	5	36
160	6	27
180	7	21
200	8	15
225	9	12
250	10	9

Color Coding as per IS:4985

Class of Pipe	Pressure Class (kg/cm ²)	Color Code
Class 1	2.5	Red
Class 2	4	Blue
Class 3	6	Green
Class 4	8	Brown
Class 5	10	Yellow
Class 6	12.5	Black
Plumbing Pipes	15	Pink

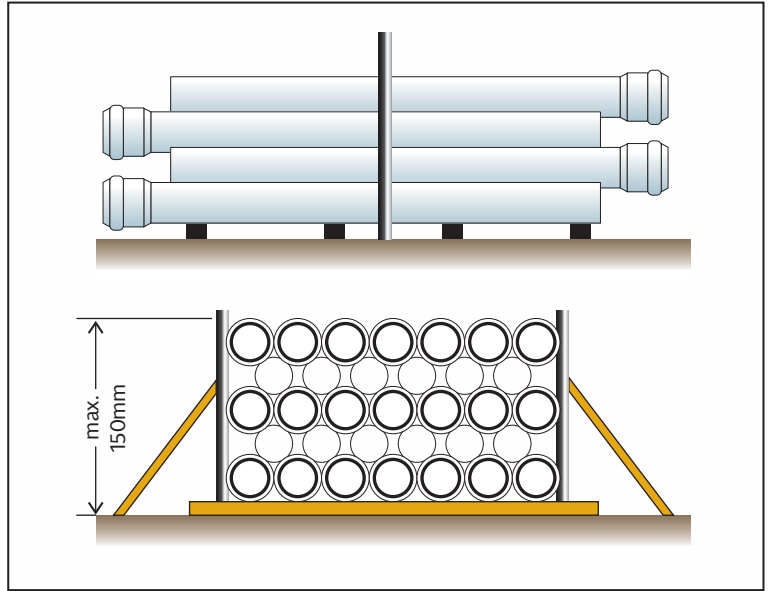
Selection of Pressure Class

Total Head (Meters)	Pressure Class (kg/cm ²)
80-100	10
60-80	8
40-60	6
25-40	4
00-25	2.5



Handling and Storage

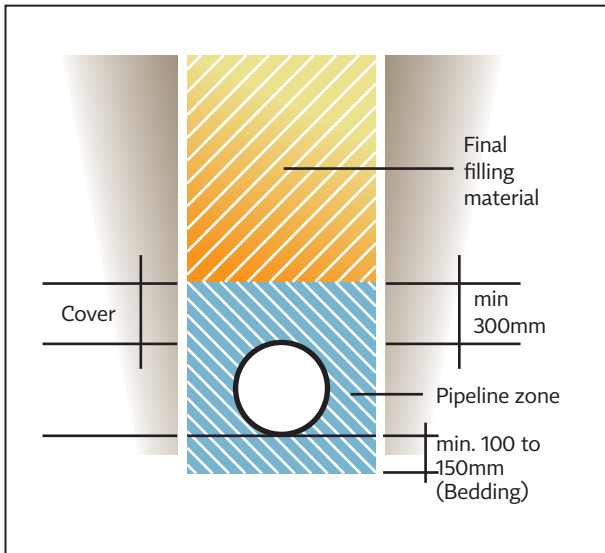
- » PVC-u pipes should be handled with due care to avoid damage to the surface and to the ends of the pipe.
- » Dragging pipes along the ground should be strictly avoided.
- » PVC-u pipes should be loaded and unloaded by hand. Lifting chains and hooks should be used carefully.
- » PVC-u pipes should be gently lowered onto the ground and stored on flat level ground free of sharp stones or objects.
- » Each layer of pipe must have the sockets protruding and alternate layers must have socket end and plain ends as shown in figure, to ensure that the pipes are supported throughout the length.
- » Extra care must be taken to see that sockets of the bottom layer do not carry any load.
- » This can be ensured by use of suitable wooden planks or blocks.



PVC-u pipes should always be stored in shade and away from direct sunlight.

Trench Preparation

- » The width of the trench should be as narrow as possible, allowing enough room for joining, backfilling, etc.
- » A trench width of 350 to 400 mm over the outside diameter of the pipe is found quite adequate.
- » Depth of the trench plays an important part in a good pipeline, and ideally it should be 1 meter above the top of the pipe.
- » The trench should be provided with a proper bedding layer, which should be free of stones and other such objects.
- » Proper and careful bedding of the pipeline will ensure a long service life of the entire system.



Technical Chart of IDOL PVC-u Pipe for Agriculture Portable Water Supply (IS:4985-2000)

Nominal Outside Diameter (Nominal Size)	Mean Outside Diameter		Outside Diameter at any point		Working pressure, mpa																	
					Class 1 0.25			Class 2 0.40			Class 3 0.60			Class 4 0.80			Class 5 1.00			Class 6 1.25		
	Min	Max	Min	Max	Avg. Max	Min	Max	Avg. Max	Min	Max	Avg. Max	Min	Max	Avg. Max	Min	Max	Avg.	Min	Max	Avg. Max	Min	Max
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)
20	20.0	20.3	19.5	20.5													1.5	1.1	1.5	1.8	1.4	1.8
25	25.0	25.0	24.5	25.5										1.6	1.2	1.6	1.8	1.4	1.8	2.1	1.7	2.1
32	32.0	32.3	31.5	32.5										1.9	1.5	1.9	2.2	1.8	2.2	2.7	2.2	2.7
40	40.0	40.3	39.5	40.5							1.8	1.4	1.8	2.2	1.8	2.2	2.7	2.2	2.7	3.3	2.8	3.3
50	50.0	50.3	49.4	50.6							2.1	1.7	2.1	2.8	2.3	2.8	3.3	2.8	3.3	4.0	3.4	4.0
63	63.0	63.3	62.2	63.8				1.9	1.5	1.9	3.7	2.2	2.7	3.3	2.8	3.3	4.1	3.5	4.1	5.0	4.3	5.0
75	75.0	75.3	74.1	75.9				2.2	1.8	2.0	3.1	2.6	3.1	4.0	3.4	4.0	4.9	4.2	4.9	5.9	5.1	5.9
90	90.0	90.3	88.9	91.1	1.7	1.3	1.7	2.3	2.1	2.6	3.7	3.1	3.7	4.6	4.0	4.6	5.7	5.0	5.7	7.0	6.1	7.1
110	110.0	110.4	108.6	111.4	2.0	1.6	2.0	3.0	2.5	3.0	4.3	3.7	4.3	5.6	4.9	5.6	7.0	6.1	7.1	8.5	7.5	8.7
125	125.0	125.4	123.5	126.5	2.2	1.8	2.2	3.4	2.9	3.4	5.0	4.3	5.0	6.4	5.6	6.4	7.8	6.9	8.0	9.6	8.5	9.8
140	140.0	140.5	138.3	141.7	2.4	2.0	2.4	3.8	3.2	3.8	5.5	4.8	5.5	7.2	6.3	7.3	8.7	7.7	8.9	10.7	9.5	11.0
160	160.0	160.5	158.0	162.0	2.8	2.3	2.8	4.3	3.7	4.3	6.3	5.4	6.2	8.2	7.2	8.3	9.9	8.8	10.2	12.2	10.9	12.6
180	180.0	180.6	177.8	182.2	3.1	2.6	3.1	4.9	4.2	4.9	7.0	6.4	7.1	9.2	8.0	9.2	11.1	9.9	11.4	13.7	12.2	14.1
200	200.0	200.6	197.6	202.4	3.4	2.9	3.4	5.3	4.6	5.3	7.7	6.8	7.9	10.0	8.9	10.3	12.3	11.0	12.7	15.2	13.6	15.7
225	225.0	225.7	222.3	227.7	3.9	3.3	3.9	6.0	5.2	6.0	8.6	7.6	8.8	11.2	10.0	11.5	13.9	12.4	14.3	17.1	15.3	17.6
250	250.0	250.8	247.0	253.0	4.2	3.6	4.2	6.5	5.7	6.5	9.6	8.5	9.8	12.4	11.0	12.9	15.4	13.8	15.9	18.9	17.0	19.6
280	280.0	280.9	276.6	283.4	4.8	4.1	4.8	7.3	6.4	7.4	10.7	9.5	11.0	14.0	12.5	14.4	17.2	15.4	17.8	21.1	19.0	21.9
315	315.0	316.0	311.2	318.8	5.3	4.6	5.3	8.2	7.2	8.3	12.0	10.7	12.4	15.6	14.0	16.1	19.3	17.3	19.9	23.8	21.4	24.7
355	355.0	356.1	350.7	359.2	5.9	5.1	5.9	9.2	8.1	9.4	13.4	12.0	13.8	17.6	15.8	18.2	21.8	19.6	22.6	26.8	24.1	27.8
400	400.0	401.2	395.2	404.8	6.6	5.8	6.7	10.3	9.1	10.5	15.1	13.5	15.6	19.8	17.8	20.5	24.4	22.0	25.3	30.2	27.2	31.3
450	450.0	451.4	444.6	455.4	7.4	6.5	7.5	11.6	10.3	11.9	17.0	15.2	17.5	22.2	20.0	23.0	27.5	24.8	28.6	33.8	30.5	35.1
500	500.0	501.5	494.0	506.0	8.2	7.2	8.3	12.8	11.4	13.2	18.8	16.9	19.5	24.8	22.3	25.7	30.5	27.5	31.7	37.5	33.9	39.0
560	560.0	561.7	553.8	566.8	9.2	8.1	9.4	14.3	12.8	14.8	21.0	18.9	21.8	27.6	24.9	28.7	34.1	30.8	35.5	42.0	38.0	43.7
630	630.0	631.9	637.6	637.6	10.3	9.1	10.5	16.1	14.4	16.6	23.7	21.3	24.5	31.0	28.0	32.2	38.4	34.7	40.0	47.2	42.7	49.2

