



# PRINCE

*Piyush Chheda Group*



# UPVC WHITE PIPES & FITTINGS

**LEAD FREE**



WIDEST RANGE OF ANY PIPING SYSTEMS AVAILABLE UNDER ONE ROOF

*System is Quality!*



## uPVC- **Lead free** ASTM pipes & fittings for **COLD** water application

PRINCE uPVC white pipes & fittings are manufactured from a specially formulated unplasticised polyvinyl chloride compound. These pipes are having properties such as good abrasion resistant, high mechanical strength, tough, durable and withstand to aggressive weather conditions.

### APPLICATIONS :

- Potable water supply in homes, apartments, hotels, commercial, complex, hospitals etc.
- RO and DM water treatment plants.
- Piping system for swimming pools.
- Industrial process lines for aggressive & corrosive fluid transportation.
- Dye plants, chrome & zinc plating, tanning, sugar, paper, distillery and textile processing industries.

### ADVANTAGES :

- Strong & light in weight.
- Easy to install, hence cost effective.
- Smooth inner surface ensures frictionless flow and power saving.
- High chemical & corrosion resistance.
- Fire retardant.
- Durable, maintenance free & operational life of 50 years.
- Lead free material ensures hygienic and safe drinking water.

### PRODUCT RANGE :

Pipes are available from ½" to " as per ASTM D 1785 in schedule 40, 80 & 120 pressure class both plain and threaded end with a standard lengths of 3 meters and 6 meters. Threads are compatible with GI fittings as per - IS-554.

Fittings are available from ½" to 4" as per ASTM 2467 in schedule 80 and ½" to 2" Elbow, Tee & Coupler in schedule 40 as per ASTM D 2466.

### JOINTING METHOD :

They can be joint by using threaded fittings or plain socket ASTM fittings by using PRINCE Heavy Duty uPVC solvent cement. The solvent cement makes pipes & fittings a permanent homogeneous joint and ensures 100% leak-proof plumbing system.

### OPERATING TEMPERATURE :

The maximum service temperature for PRINCE uPVC- plumbing system is 60°C for continuous flow and 90°C for short time flow.

## INSTALLATION :

Preparing **PRINCE** uPVC white pipes & fittings for Installation :

**Cutting** : Cut PRINCE uPVC pipe to the desired length, ensure that the cut pipe & fitting are of compatible sizes. Cut the pipe as squarely as possible for proper bonding.

**Debarring / Beveling** : Ensure that the cut pipe is free from burrs and filling that might prevent proper contact. Burrs and filling should be removed from outside and inside of the pipe with a suitable file.

**Fitting Preparation** : Chamfer the end of the pipe to facilitate entry into the fitting. Wipe clean the pipe end & fitting with a dry rag to remove dirt & moisture. If required, use cleaners to clean grease & dirt from pipe & fittings surface to be jointed. Dry fit the pipe to ensure total entry into the bottom of the fittings socket & make a visible marking.

**Solvent Cement Application** : Use PRINCE Heavy Duty uPVC solvent cement to ensure perfect solvent weld joint. Apply an even coat of solvent cement on both the top of the pipe end & inside the fitting socket. Prince solvent cement eliminates the use of primer up to 2" only, above 2" size, use primer before applying solvent cement.

**Assembly** : Immediately insert the pipe into the fitting socket. Rotate the pipe 1/4<sup>th</sup> to 1/2 turn while inserting into the fitting socket. Hold the assembly for approximately 30-60 seconds to avoid push out.

**Set & Cure** : Assembled joints must be allowed to set & cure properly prior to testing the system. Set & cure time depends on size, temperature, humidity & pressure. Drying time is faster for drier environment, small size & higher temperature.

**The system should be pressure tested before concealing the pipe line to check any leakage at joints..**

### Temperature Pressure De-Rating Factor





The operating pressure of PVC pipes will be reduced as the operating temperature increases above 23°C (73° F). To calculate this reduction, multiply the operating pressure with the correction factor shown below at a operating temperature of system :

Operating Temp <sup>o</sup> C (F)	23 <sup>o</sup> C (73)	27 <sup>o</sup> C (80)	32 <sup>o</sup> C (90)	38 <sup>o</sup> C (100)	43 <sup>o</sup> C (110)	49 <sup>o</sup> C (120)	54 <sup>o</sup> C (130)	60 <sup>o</sup> C (140)
PVC	100%	90%	75%	62%	50%	40%	30%	22%

Dimension and water pressure rating at 23°C of Plain Pipes as per ASTM D 1785 compound grade equivalent to PVC 1120/2120

Nom. Size		Outside Diameter		Schedule 40					Schedule 80					Schedule 120				
				Wall Thickness		Max. Work Pres. At 23°C			Wall Thickness		Max. Work Pres. At 23°C			Wall Thickness		Max. Work Pres. At 23°C		
Inch.	mm	Inch.	mm	Inch.	mm	Mpa	PSI	kg/cm <sup>2</sup>	mm	Mpa	PSI	kg/cm <sup>2</sup>	mm	Mpa	PSI	kg/cm <sup>2</sup>		
½"	15	0.840 ± 0.004	21.34 ± 0.10	0.109	2.77 ± 0.51	4.14	600	42.19	3.73 ± 0.51	5.86	850	59.76	4.32 ± 0.51	6.96	1010	71.01		
¾"	20	1.050 ± 0.004	26.67 ± 0.10	0.113	2.87 ± 0.51	3.31	480	33.75	3.91 ± 0.51	4.76	690	48.51	4.32 ± 0.51	5.31	770	54.14		
1"	25	1.315 ± 0.005	33.40 ± 0.13	0.133	3.38 ± 0.51	3.10	450	31.64	4.55 ± 0.53	4.34	630	44.29	5.08 ± 0.53	4.96	720	50.62		
1¼"	32	1.660 ± 0.005	42.16 ± 0.13	0.140	3.56 ± 0.51	2.55	370	26.01	4.85 ± 0.58	3.59	520	36.56	5.46 ± 0.58	4.14	600	42.18		
1½"	40	1.900 ± 0.006	48.26 ± 0.15	0.145	3.68 ± 0.51	2.28	330	23.20	5.08 ± 0.61	3.24	470	33.04	5.72 ± 0.61	3.72	540	37.97		
2"	50	2.375 ± 0.006	60.32 ± 0.15	0.154	3.91 ± 0.51	1.93	280	19.69	5.54 ± 0.66	2.76	400	28.12	6.35 ± 0.66	3.24	470	33.04		
2½"	65	2.965 ± 0.007	75.30 ± 0.18	0.203	5.16 ± 0.61	2.07	300	21.09	7.01 ± 0.84	2.90	420	29.53	7.62 ± 0.84	3.24	470	33.04		
3"	80	3.500 ± 0.008	88.90 ± 0.20	0.216	5.49 ± 0.66	1.79	260	18.28	7.62 ± 0.91	2.55	370	26.01	8.89 ± 0.91	3.03	440	30.93		
4"	100	4.500 ± 0.009	114.30 ± 0.23	0.237	6.02 ± 0.71	1.52	220	15.47	8.56 ± 1.02	2.21	320	22.50	11.10 ± 1.02	2.96	430	30.23		
6"	150	6.625 ± 0.011	168.28 ± 0.28	0.280	7.11 ± 0.86	1.24	180	12.66	10.97 ± 1.32	1.93	280	19.69	14.27 ± 1.32	2.55	370	26.01		
8"	200	8.625 ± 0.015	219.08 ± 0.38	0.322	8.18 ± 0.99	1.10	160	11.25	12.70 ± 1.52	1.72	250	17.58	18.24 ± 1.52	2.62	380	26.72		

- Any specification can change without prior notice.
- All information contained in this literature is given in good faith and believed to be accurate and reliable. But because of many factors which may be outside our knowledge and control and affect the use of the product, no warranty is given or is to be implied with respect to such information, nor do we offer any warranty of immunity against patent infringement. No responsibility can be accepted for any error, omissions or incorrect assumptions.

 <p><b>UNION</b></p> <p>Size : 1/2", 3/4", 1", 1 1/4", 1 1/2", 2".</p>	 <p><b>ELBOW 90°</b></p> <p>Size : 1/2", 3/4", 1", 1 1/4", 1 1/2", 2", 2 1/2", 3" &amp; 4". Sch. 40 : 1/2", 3/4", 1", 1 1/4", 1 1/2" &amp; 2".</p>	 <p><b>ELBOW 45°</b></p> <p>Size : 1/2", 3/4", 1", 1 1/4", 1 1/2" &amp; 2".</p>	 <p><b>EQUAL TEE</b></p> <p>Size : 1/2", 3/4", 1", 1 1/4", 1 1/2", 2", 2 1/2", 3" &amp; 4". Sch. 40 : 1/2", 3/4", 1", 1 1/4", 1 1/2" &amp; 2".</p>	 <p><b>DOUBLE TEE</b></p> <p>Size : 1/2", 3/4", 1", 1 1/4", 1 1/2" &amp; 2".</p>	 <p><b>END CAP</b></p> <p>Size : 1/2", 3/4", 1", 1 1/4", 1 1/2", 2", 2 1/2", 3" &amp; 4".</p>	 <p><b>COUPLER</b></p> <p>Size : 1/2", 3/4", 1", 1 1/4", 1 1/2", 2", 2 1/2", 3" &amp; 4". Sch. 40 : 1/2", 3/4", 1", 1 1/4", 1 1/2" &amp; 2".</p>
 <p><b>MALE THRD. ADAPTOR</b></p> <p>Size : 1/2", 3/4", 1", 1 1/4", 1 1/2", 2", 2 1/2", 3" &amp; 4"</p>	 <p><b>FEMALE THRD. ADAPTOR</b></p> <p>Size : 1/2", 3/4", 1", 1 1/4", 1 1/2", 2", 2 1/2", 3" &amp; 4"</p>	 <p><b>FEMALE THRD. ADAPTOR (BRASS)</b></p> <p>Size : 1/2x1/2", 3/4x3/4", 1x1", 1 1/4x1 1/4", 1 1/2x1 1/2" &amp; 2x2".</p>	 <p><b>FEMALE THRD. TEE (BRASS)</b></p> <p>Size : 1/2x1/2x1/2", Reducing : (3/4x3/4x 1/2" &amp; 1x1x1/2").</p>	 <p><b>FEMALE THRD. REDUCER (BRASS)</b></p> <p>Size : 3/4x1/2" &amp; 1x1/2"</p>	 <p><b>MALE THRD. ADAPTOR (BRASS)</b></p> <p>Size : 1/2x1/2", 3/4x3/4", 1x1", 1 1/4x1 1/4", 1 1/2x1 1/2" &amp; 2x2".</p>	 <p><b>BALL VALVE PLAIN / THRD. TYPE</b></p> <p>Size : 1/2", 3/4", 1", 1 1/4", 1 1/2", 2", 2 1/2", 3" &amp; 4".</p>
 <p><b>ELBOW (BRASS)</b></p> <p>Size : 1/2x1/2" &amp; 1x1" Reducing Elb (Brs) : 3/4 x 1/2" &amp; 1x1/2".</p>	 <p><b>TANK NIPPLE</b></p> <p>Size : 1/2", 3/4", 1", 1 1/4", 1 1/2" &amp; 2".</p>	 <p><b>SOLVENT CEMENT</b></p> <p>Size : 50ml, 100ml, 250ml, 500ml &amp; 1000ml.</p>	 <p><b>REDUCING ELBOW PLAIN</b></p> <p>Size : 1x3/4", 3/4x1/2" &amp; 1x1/2".</p>	 <p><b>REDUCING ELBOW PLASTIC THRD.</b></p> <p>Size : 1/2x1/2", 3/4x3/4" &amp; 1x1", Reducing : 3/4x1/2", 1x1/2" &amp; 1x3/4".</p>	 <p><b>REDUCING TEE PLASTIC THRD.</b></p> <p>Size : 1/2x1/2", 3/4x3/4", 1x1", Reducing : 3/4x1/2" &amp; 1x1/2" 1x3/4".</p>	 <p><b>TANK CONECTOR</b></p> <p>Size : 1/2", 3/4", 1", 1 1/4", 1 1/2" &amp; 2".</p>
 <p><b>EXT. END PLUG</b></p> <p>Size : 1/2"</p>	 <p><b>BEND 90° (F)</b></p> <p>Size : 1/2", 3/4", 1", 1 1/4", 1 1/2", 2", 2 1/2", 3" &amp; 4"</p>	 <p><b>MALE THRD. ELBOW (BRASS)</b></p> <p>Size : 1/2x1/2".</p>	 <p><b>REDUCING FEMALE THRD. ELBOW</b></p> <p>Size : 1x1/2" &amp; 1x3/4".</p>	 <p><b>FEMALE THRD. TEE (BRASS)</b></p> <p>Size : 1x1/2" &amp; 1x3/4".</p>	 <p><b>Reducing MTA (BRASS)</b></p> <p>Size : 3/4 X 1/2".</p>	 <p><b>Reducing Thrd. Bush</b></p> <p>Size : 1 x 1/2" x 3/4" &amp; 3/4 x 1/2".</p>
 <p><b>PIPES</b></p> <p>Size : 1/2", 3/4", 1", 1 1/4", 1 1/2", 2", 2 1/2", 3", 4", 6" &amp; 8".</p>	 <p><b>REPAIR COUPLER</b></p> <p>Size : 1".</p>	 <p><b>4 WAY SIDE TEE</b></p> <p>Size : 2".</p>	 <p><b>REDUCING BUSH</b></p> <p>Size : 3/4x1/2", 1x3/4", 1x1/2", 1 1/4x1", 1 1/4x3/4", 1 1/4x1/2", 1 1/2x1 1/4", 1 1/2x1", 1 1/2x3/4", 1 1/2x1/2", 2x1 1/2", 2x1 1/4", 2x1", 2x3/4", 2x1/2", 2 1/2x2", 3x2 1/2", 3x2", 4x3", 4x2 1/2" &amp; 4x2".</p>	 <p><b>REDUCER</b></p> <p>Size : 3/4x1/2", 1x3/4", 1x1/2", 1 1/4x1", 1 1/4x3/4", 1 1/4x1/2", 1 1/2x1 1/4", 1 1/2x1", 1 1/2x3/4", 1 1/2x1/2", 2x1 1/2", 2x1 1/4", 2x1", 2x3/4", 2x1/2", 2 1/2x2", 3x2 1/2", 3x2", 4x3", 4x2 1/2" &amp; 4x2".</p>	 <p><b>REDUCING TEE</b></p> <p>Size : 3/4x1/2", 1x3/4", 1x1/2", 1 1/4x1", 1 1/4x3/4", 1 1/4x1/2", 1 1/2x1 1/4", 1 1/2x1", 1 1/2x3/4", 1 1/2x1/2", 2x1 1/2", 2x1 1/4", 2x1", 2x3/4", 2x1/2", 2 1/2x2", 3x2 1/2", 3x2", 3x1 1/2", 3x1 1/4", 3x1", 4x3", 4x2 1/2", 4x2", 4x1 1/2", 4x1 1/4" &amp; 4x1".</p>	

☀ Pipes SCH 40 Plain & Threaded 3 Mtrs & 6 Mtrs in all sizes,  
Pipes SCH 80 Plain & Threaded 3 Mtrs & 6 Mtrs in all sizes.

# PRINCE

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Website

									
SWR	CPVC	uPVC	PPR	AGRI	RAINWATER BORE/TUBEWELLS SYSTEMS	UNDERGROUND MANHOLE COVER	HDPE PIPES	PEX PIPES	WATER STORAGE TANKS

